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SCARCITY AND SURFEIT

THE ECOLOGY OF AFRICA'S CONFLICTS

EDITED BY JEREMY LEDE

Scarcity and Surfeit

The ecology of Africa's conflicts

EDITED BY
Jeremy Lind and Kathryn Sturman

African Centre for Technology Studies
and
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Preface

This book is a product of international and regional co-operation. Many scholars, government officials, non-governmental agencies and programme officers from various donor agencies have contributed to its conception and development. It forms part of the growing efforts of the African Centre for Technology Studies (ACTS) and the Institute for Security Studies (ISS) to explore and promote understanding of the complex dimensions and causes of political conflicts in Africa.

ACTS is an international inter-governmental policy research and training organization located in Nairobi, Kenya. The Centre's activities focus on the implementation of Agenda 21 and related conventions on biological diversity, climate change and desertification.

The ISS is a regional applied policy research institute with offices in Pretoria and Cape Town with a mission to conceptualise, inform and enhance the security debate in Africa. The Institute undertakes research and analysis; supports policy formulation; awareness-raising; collecting, interpreting and disseminating information on national, regional and international levels; and capacity-building.

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Chapter One

Contemporary Conflict Analysis in Perspective

João Gomes Porto

Introduction

> "...at what point does the proliferation of 'hunches' add confusion or avoid critical issues in the field? Does yet another study that finds some statistically significant relationship between ecological (i.e. attribute and relational) variables and the incidence or some other characteristic of war help develop theory? For the most part, the causes of war ... remain as obscure as ever. Modern research has left a trail of uncertainty, partial clues, contradiction, and continued mystery ..."[1]

> "...there is no single cause of a conflict. Nor is there often any single precondition for sustainable peace. Different factors vary in importance, and reinforce or neutralise each other. The analysis of the situation must therefore include assessing the relative importance of the different indicators and their inter-relationship."[2]

In an essay titled 'The theoretical deficit in the study of war', Thomas Cusak reminds us that although "war remains a major social problem", it is reassuring to know that "in the last few decades a significant number of political and other social scientists have devoted considerable effort to the study of its causes and consequences".[3] Nonetheless, far from being unified, the study of armed conflict and war remains fragmented between disciplinary boundaries, which produce conflicting and often mutually exclusive theories. Most importantly, there is a disturbing lack of integrative knowledge on the subject.[4] It is in this context that Kalevi Holsti's comment quoted above must be put into perspective. In fact, what Holsti is rebelling against is what has commonly been referred to as the 'tyranny of the single-cause' in the explanation of war.

This book represents a commendable exception to the 'tyranny of the single-cause'. In fact, the authors of the six chapters do not claim to have discovered "the philosopher's stone, the magic formula, which, mechanically applied, will produce the desired result and thus substitute for the uncertainties and risks of political action the certitude of rational calculation".[5] On the contrary, backed by extensive primary data collected *in situ*, each chapter

illuminates the role that resources, both scarce and abundant, play among other variables in the onset and escalation of the violent conflicts portrayed. By focusing attention on the 'ecological variable', as an underestimated factor among more commonly cited ethnic, religious, weak state or other reasons for conflicts in places like Sudan, Rwanda and Somalia, this book enriches rather than reduces the debate on Africa's wars.

Often considered to face 'the greatest challenges to peace and stability', the African continent has been stage to ten high-intensity conflicts in the past 25 years, suffering casualties which range between 3 800 000 and 6 800 000 people and an astounding 155 million people directly or indirectly affected by war.

There is a complex relationship between ecology and conflict in sub-Saharan Africa, involving multiple actors, divergent and often conflicting interests, located at several levels of analysis. The access to and control of valuable natural resources, including minerals, oil, timber, productive pastures and farming land, have been crucial factors in the occurrence of violent conflicts across the continent. In their widest sense, the use and control of ecological resources as causes of conflicts has been motivated by both grievance and greed. Moreover, grievance related to the unjust and inequitable distribution of land and natural resources in many regions of Africa, and greed for valuable ecological resources have in many instances been the underlying causes of armed conflicts.

The consequences of conflicts linked to ecological control are staggering. Conflict in Sudan has resulted in an estimated two million deaths since 1983, as well as a humanitarian crisis of immense proportions. Similarly, Africa's 'First World War' in the Democratic Republic of Congo has resulted in an estimated 1.5 million deaths since 1998. Despite the extent, scope, and impact of conflict, crime and violence, the opportunity remains to redress and rectify access to and control over the continent's varied natural resources. It is hoped that this book will contribute to more substantial policy, legal and institutional reform of natural resource distribution and control, as a prerequisite for sustainable conflict prevention and resolution in Africa.

Developing Theories of Conflict Analysis

During the Cold War, the study of armed conflict and war was largely systemic in orientation and other conflicts were seen as 'proxy wars', 'small wars' or 'low intensity conflicts', to a large extent a product and creation of bipolarity. Systemic, global or world wars attracted the major part of scholarly attention, both within the field of international relations as well as strategic studies. Because the traumatic experiences of two world wars demonstrated that these wars produced far greater and graver consequences than

other wars, the growing focus on 'big wars'[6] may be located within a strong normative orientation that permeated the post–1945 period. This was a result of attempts by academics and policy makers to understand such system-altering occurrences, hoping "that a better understanding of the causes of these wars will increase the possibility of preventing them".[7] This concern led to an overwhelming focus on interstate wars and the vast majority of in-depth studies of war centred on strategic studies' issues such as nuclear deterrence and balances of power, alliances and arms races as well as the incidence, frequency and duration of interstate wars.[8]

Paradoxically, while the bulk of scholarly attention was focusing on understanding 'the wars that mattered' (i.e. interstate wars), the conflict landscape around the world was gradually assuming a very different profile. As Ted Robert Gurr and his team based at the University of Maryland's Center for International Development and Conflict Management have uncovered, there was a sharp increase in the total magnitude of violent conflict within societies from the 1950s to the 1980s.[9] What the authors refer to as "societal conflicts" represented roughly three times the magnitude of interstate war during most of the last half century, increasing sixfold between the 1950s and the early 1990s.[10] In this sense, as pointed out by J. David Singer, "while the conventional wisdom sees the level of regional and communal war as something new – permitted, if not catalysed, by the end of superpower confrontation – the evidence suggests otherwise".[11] This discrepancy in the perceptions of when, where, how and what types of conflicts developed during and after the Cold War is encapsulated in the following words by the Center for Systemic Peace,

> "... contrary to popular myths, it was the Cold War period that was characterised by increasing incidence and magnitudes of political violence, mostly 'civil wars', that gradually decimated large areas of the world, seduced fragile political relations into hostility and chaos, led many newly emergent and some long-established states to the brink of structural failure (and beyond) ... the Cold War 'image' lent a curious patina of civility and stasis that served as the perfect cover for the subterranean ravages wrought during the Third World War."[12]

When the Berlin Wall came down in 1989, it was widely anticipated that threats to international peace and security would be substantially reduced and that the world at large would benefit from what came to be known as the 'peace dividend'. The final triumph of the neo-liberal democratic model was seen by some as evidence of the *end of history*. However, initial evidence that this would not be the case came in the form of the instability that followed the collapse of communism in Eastern Europe and the former Soviet republics. The collapse of the Soviet Union saw hitherto concealed conflicts erupt around issues of governance and self-determination, ethnic division and territorial disputes. In fact, the peaceful example set by Czechoslovakia's

'Velvet Revolution' was the exception rather than the rule in a Cold War transition characterised by turbulence and instability.[13] In addition, the end of superpower patronage to client movements worldwide was considered to have created a power vacuum whose inevitable results would include "the spread of violence and the emergence of disparate groups, ostensibly fighting in the name of ideology, religion or ethnicity, but seeking to finance their operations through local taxation, plunder and pillage".[14]

However defined, these conflicts had in fact become the rule in a world that was fast changing from the predictability of bipolarity to a vaguely defined unipolar 'New World Order'. This caused a fundamental shift in the analysis of war and armed conflict, a shift that permeated all disciplines that focused on this most destructive of human activities. These became the conflicts that mattered, for not only could they threaten global peace and security in their tendency to metastise to neighbouring countries, but they also caused unprecedented levels of human and material destruction. Largely focused on a 'clausewitzian universe' of interstate wars, academia and policy-making circles in the West were largely unprepared for the task of explaining such 'societal conflicts'. The tools of strategic and war studies seemed increasingly irrelevant to explain ethno-nationalism, religious militancy, environmental degradation, resource scarcity, preventive diplomacy, peacekeeping or humanitarian intervention.

In fact, after the end of the Cold War and in particular the latter half of the 1990s, the incidence of such conflicts increased. Conflict monitoring projects such as those led by Schmid and Longman (PIOMM) and Wallensteen and Sollenberg (SIPRI) have found a disturbing escalatory trend in the occurrence of violent conflicts. While a total of 22 high-intensity conflicts were being fought worldwide in mid-1995, this number rose to 25 by November 1999. Equally perturbing was the increase in low-intensity conflicts which rose from a low of 31 in 1996 to a high of 77 by mid-1999. On a lower violence threshold, violent political conflicts also increased dramatically, from a low of 40 in 1995 to a staggering 151 in mid-1999.[15] As Miall, Ramsbotham and Woodhouse found, this raises the following question:

> "What are we to call these conflicts? Current terminology includes 'internal conflicts' (Brown (ed) 1996), 'new wars' (Kaldor and Vashee (eds) 1997), 'small wars' (Harding 1994), 'civil wars' (King 1997), 'ethnic conflicts' (Stavenhagen 1996), 'conflict in post-colonial states' (Van de Goor et al (eds) 1996) and so on, as well as various expressions used by humanitarian and development NGOs and international agencies, such as 'complex human emergencies' and 'complex political emergencies ..."[16]

If war had in fact changed, its transformation needed to be explained. It is in this context that the 'structural transformation of war' proposition was put forward by, among others, Martin Van Creveld, Kalevi Holsti and Mary

Kaldor. 'Low-intensity conflicts', 'wars of the third kind' and 'new wars' were the concepts put forward by the three authors to describe the prevailing form of armed conflict in the second half of the 20th century.[17] On the ground, the visible signs of the structural transformation of war are evident from the way it is conducted. A far cry from the structured conduct of conventional war, contemporary wars do not typically have a precise beginning, since in the vast majority of cases there are no formal declarations of war that would indicate the initiation of hostilities. In addition, contemporary armed conflicts conspicuously lack definitive battles, decisive campaigns and formal endings. They typically last for decades. In the way they are conducted, contemporary wars are fought by loosely knit groups of regulars, irregulars, cells, and occasionally locally based warlords under little or no central authority. As Van Creveld points out, "Very rarely do they [LICs] involve regular armies on both sides, though often it is a question of regulars on one side fighting guerrillas, terrorists, and even civilians, including women and children on the other."[18] An important consequence of this is that in this new type of organised violence the distinction between war (understood as violence between states or organised political groups for political motives) and organised crime and large-scale violations of human rights is largely blurred.[19]

Furthermore, contemporary armed conflicts develop within what Kaldor terms the new "globalised" war economy. In the present day 'war economies' are highly decentralised and only a fraction of the population participates directly in the war. This participation is usually undertaken amidst high unemployment scenarios characterised by heavy dependence on external resources, a decline in domestic production and physical destruction coupled with interruptions in normal trade and taxation mechanisms. These factors force parties in conflict to finance themselves either through plunder and the black market or external assistance by diaspora communities, support from neighbouring governments or illegal trade in arms, drugs or valuable commodities.[20] Finally, an important characteristic of contemporary warfare is complexity. Complexity is an important dimension of 'new wars' because in the vast majority of cases there are several and varied factions involved, as well as a multitude of external parties which may provide consultation, funding, technical support and in many cases direct military involvement and assistance.

The structural transformation of war described above is seen by Kaldor, Holsti and Van Creveld to be a consequence of a radical change in conflict goals. The profile of wars has changed because 'new wars' are "about identity politics in contrast to the geo-political or ideological goals of earlier wars".[21] Ranging from ethnic politics to nationalist movements claiming independence or secession, the vast majority of groups engaged in contemporary armed conflicts define themselves on the basis of their identity, whether of a national, ethnic, religious or cultural character. In fact, self-determination is

considered the primary cause of contemporary warfare by the Minorities at Risk Project. Nearly 100 national and minority peoples took part in serious violent conflict at some time between 1945 and 1990. Sixty conflicts were fought over issues of group autonomy and lasted at least a decade and at the beginning of 1996 there were more than 40 violent ethno-political conflicts under way.[22]

Identity politics has assumed centre stage in the discourse of groups involved in contemporary conflict. Kaldor considers this inevitable in contexts generally characterised by the weakening of the state and in some extreme cases its disintegration, which often leads to "the erosion of the monopoly of legitimate organised violence".[23] Similarly, Holsti locates the causes of "wars of the third kind" in the "fundamental quarrels about the nature of communities and the problems of state-building" in a world where communities "have adopted the mystique of statehood as the ultimate and final political format".[24] These wars are not about foreign policy, security, honour, or status. They are about statehood, governance, and the role and status of nations and communities within states. The growth in identity politics is attributed by Kaldor to the vacuum created by the absence of forward-looking projects and the failure of "other sources of political legitimacy" such as socialism or the nation-building rhetoric of first generation post-colonial leaders. Holsti emphasises that "new and weak states are the primary locale of present and future wars'"and that consequently we can understand contemporary war better "if we explore the birth of states and how they have come to be governed".[25]

'Greed versus Grievance': Tautological Debate or Two Sides of the Same Coin?

A shift of focus has occurred. To explain these armed conflicts, analysts and policy makers looked at the groups in conflict and their claims in order to establish what these conflicts were about.[26] Turning away from the systemic level, analysis began to focus on local actors and local situations to better understand the reasons behind claims for self-determination aiming for independence, autonomy, secession, the control or participation in government. This shift in focus strongly influenced the development of conflict types by analysts seeking to clarify the nature of the issues in conflict. Conflict causes have in fact become the "most frequently invoked typology"' and within these, as Singer points out, "all the usual suspects are found: territory, ideology, dynastic legitimacy, religion, language, ethnicity, self-determination, resources, markets, dominance, equality, and, of course, revenge".[27] To a large extent this explains the plethora of definitions that now exist for contemporary wars and the relentless search for a 'golden formula' applicable to all.

At opposite sides of the aetiological spectrum, two recent examples have included the development of an 'ethnic conflict' type and a 'resource war' type. 'Ethnic conflict' became in the beginning of the 1990s "the most fashionable term and last resort to explain contemporary social conflicts".[28] Yet, what do we mean when we attribute the 'ethnic' classification to conflicts as varied as Bosnia-Herzegovina, the Tamil insurgency in Sri Lanka, the civil wars in Rwanda, Burundi and Angola? There have been two main scholarly approaches to 'ethnicity'. On the one hand, ethnicity is considered a primordial or inherited group characteristic that some scholars would argue is biologically based.[29] On the other hand, ethnicity has been conceptualised as an instrument, a contextual, fluid and negotiable aspect of identity, "a tool used by individuals, groups, or elites to obtain some larger, typically material end".[30] According to Timothy Sisk, instrumentalists argue that ethnic identities,

> "... wax and wane, contingent on a wide variety of variables, including the capacity and skills of political entrepreneurs who can effectively mobilise groups for collective aims and articulate beliefs about common ancestry and destiny ... some instrumentalists (alternatively known as structuralists) suggest that ethnic identity is socially constructed, often created or de-emphasised by power-seeking political elites in historically determined economic and social arrangements."[31]

Although the distinction between these two seemingly opposing views may at first appear academic, "the extent to which scholars see ethnicity as immutable and innate versus socially constructed influences beliefs about the type of political systems that can best ameliorate conflict along ethnic lines."[32] In fact, contemporary conflict analysis has gradually realised that they "are not mutually exclusive and can in fact be describing different sides of the same coin".[33] This has given rise to a 'constructivist' approach to 'ethnic conflict', one proposed by Lake and Rothchild as well as Sisk. Lake and Rothchild concluded that "ethnicity is not something that can be decided upon by individuals at will, like other political affiliations, but is embedded within and controlled by the larger society" and therefore it can only be understood within a 'relational framework'.[34] Sisk emphasised the idea of ethnic identity as "multifaceted and fluid" in that "not only may any single individual possess more than one identity characteristic, but the boundaries of group identity can change dramatically over time".[35]

Consequently, it becomes crucial that the conflict researcher critically analyses situations that may be described by participants and outsiders as 'ethnic conflicts'. This entails understanding that although a basic human need, identity and by extension ethnic identity is fluid, malleable, constructed and negotiable. As Ted Gurr rightly emphasises, while cultural identity may be stronger and more enduring than most other collective identities (i.e. ideological or class), it is most likely to provide the basis for political

mobilisation and conflict when it provides the basis for invidious distinctions among peoples (inequalities among cultural groups in status, economic well-being, access to political power) that are deliberately maintained through public policy and social practice.[36]

At the other end of the aetiological spectrum a number of recent studies have sought to portray contemporary wars as driven essentially by economic agendas, particularly those conflicts in the developing world. As Jakkie Cilliers points out, this approach has been collated into that of 'resource-wars' and is sometimes put forward as reflecting a 'new' type of war.[37] While the role of resources in the onset and continuation of violent conflicts has been the object of study for many decades, until recently studies have for the most part centred on the role played by scarcity or relative scarcity of resources as prime triggers of violence, both at the individual as well as the collective level. Rupesinghe and Anderlini, for example, consider that stagnation and protracted income decline in poor and middle-income countries (i.e. the cases of Algeria, Sierra Leone, Liberia and Lebanon); unequal growth and unequal distribution of resources in cases of accelerated economic growth (i.e. Mexico and South Africa) and finally structural adjustment policies and changing distribution of resources may act as triggers of violent conflict.[38] Development theory has also focused on the role that resources and societal development play on the onset of violence. In this respect, Gurr considers that "for the last half century at least, societies at low levels of development have suffered much more from societal warfare than prosperous societies".[39] Recent studies, however, have focused on resource appropriation in situations of abundance as the fundamental underlying cause of war. According to the 'resource-war' proposition, groups engaged in violent conflict are not primarily motivated by grievance (i.e. ethnic discrimination, inequality, historical animosity), but essentially by economic agendas and therefore greed. Issues of identity and self-determination are dismissed in favour of a focus on the role that resources, by and of themselves, play as the main objectives of groups engaged in war.

A strand of the 'resource-war' hypothesis has recently become known as the 'greed theory' of conflict through the work of Paul Collier and Anke Hoeffler.[40] In its original formulation, Collier et al defined the 'greed hypothesis' in the following terms,

> "... the discourse on conflict tends to be dominated by group grievances beneath which inter-group hatreds lurk, often traced back through history. I have investigated statistically the global pattern of large-scale civil conflict since 1965, expecting to find a close relationship between measures of these hatreds and grievances and the incidence of conflict. Instead, I found that economic agendas appear to be central to understanding why civil wars get going. *Conflicts are far more likely to be caused by economic opportunities than by grievance* [my emphasis] ..."[41]

In 'On the economic causes of civil wars' Collier and Hoeffler use a model based on expected-utility theory under the premise that "rebels will conduct a civil war *if the perceived benefits outweigh the costs of rebellion*".[42] Using statistical regression methods to test four independent variables (per capita income, natural resource endowment, population size and ethno-linguistic fractionalisation) the authors found that "higher per capita income reduces the duration of civil war and the probability of its occurrence" and that the predicted duration of civil war is found to be much shorter if income is higher. This leads them to conclude that "civil war is overwhelmingly a phenomenon of low income countries".[43] As regards natural resources, the authors concluded that "the possession of natural resources initially increases the duration and the risk of civil war but then reduces it". This is interpreted as being "due to the taxable base of the economy constituting an attraction for rebels wishing to capture the state". On the other hand, a high level of natural resources diminishes the probability of war due to the enhanced financial capability of the government and hence "its ability to defend itself through military expenditure".[44] In terms of population size, the authors found that "countries with larger populations have higher risks of war and these wars last longer". Nevertheless, while in large population countries the risk may be a function of a desire for secession, one should bear in mind that according to the model, population size also affects rebel movements' coordination costs. Therefore the effect of population size is said to be "ambiguous".[45] Finally, as concerns ethno-linguistic fractionalisation, Collier and Hoeffler found "perhaps our most interesting result".[46] Contrary to popular and academic perceptions, the effect of ethno-linguistic fractionalisation is said not to be necessarily conflict enhancing in that "highly fractionalised societies are no more prone to war than highly homogeneous ones". In fact, the risk of civil war "arises when the society is polarised into two groups" because polarised societies have around a 50% higher probability of civil war than either homogeneous or highly fractionalised societies.[47] In conclusion, Collier and Hoeffler claim that "between them, these four variables make a substantial difference to the chances of civil war" and that they "investigated several other variables but found the above formulation to be robust".[48]

These conclusions were crystallised by Collier into the 'greed hypothesis' put forward in a later paper entitled 'Doing well out of war',

> "... discussion of civil conflict is dominated by the narrative of grievance ... The evidence on the causes of conflict does not really support this interpretation. The objective factors which might contribute to grievance, such as income and asset inequality, ethnic and religious divisions, and political repression do not seem to increase the risks of conflict .... the evidence on the causes of conflict points to economic factors as the main drivers of conflict. The combination of large exports

> of primary commodities, low education, a high proportion of young men and economic decline between them drastically increase risks. Greed seems more important than grievance ..."[49]

With these words, the 'greed versus grievance' debate began. The possible effects of 'grievance' were statistically put to the test. Grievance was tested through the following independent variables: rapid economic decline, inequality, political repression, political transition and finally ethnic and religious fractionalisation. Collier found that a "prior period of rapid economic decline increases the risk of conflict" in that "growth gives hope, while rapid decline may galvanise people into action". A significant finding was that "inequality, whether measured in terms of income or land ownership, has no effect on the risk of conflict".[50] As concerns political repression, the results were ambiguous. Collier found that a fully democratic society is safer than a partial democracy but that these effects are moderate and only slightly significant. However, political transitions increase the risk of conflict. As regards ethnic and religious fractionalisation, the same results as above were confirmed. Collier's conclusions were as ground breaking as they were controversial. In his words,

> "... *the grievance theory of conflict thus finds surprisingly little empirical support.* Inequality does not seem to matter, while political repression and ethnic and religious divisions have precisely the opposite of their predicted effects ... rebellions based purely on grievance face such severe collective action problems that the basic theories of social science would predict that they are unlikely to occur ... [my emphasis]."[51]

In terms of measuring a 'greed' factor, Collier considers that it must entail more than just asking belligerents their reasons for fighting because "those rebel organisations which are sufficiently successful to get noticed are unlikely to be so naive as to admit to greed as a motive".[52] This is due to the fact that "narratives of grievance play much better with this [the international] community than narratives of greed". Nevertheless, a narrative of grievance by itself can serve a rebel organisation in attracting more people and new recruits. This leads to the conclusion that "even where the rationale at the top of the organisation is essentially greed, the actual discourse may be entirely dominated by grievance". Because of this, the approach taken to measure 'grievance' relies not on public statements by rebel leaders (for example) but on the inference of "motivations from patterns of observed behaviour" in order to "determine patterns in the origins of civil war, distinguishing between those causal factors which are broadly consistent with an economic motivation, and those which are more consistent with grievance".

The measurement of 'greed' is then refined to include the weight of primary commodity exports in a country's gross domestic product as an

independent variable in its own right. Collier found that the "presence of primary commodity exports massively increases the risks of civil conflict".[53] In addition, the cost of attracting recruits to rebellion are measured in terms of both the "proportion of young men in the society" as well as the 'endowment of education'"[54] In this regard, while a high proportion of young men increases the risk of conflict, "if we double the proportion of young men its effect can be offset by increasing the average educational endowment by around two months". In fact, "each year of education reduces the risk of conflict by around 20%".[55] This leads to the conclusion that,

> "... the greed-based approach to conflict would argue that it is the underlying economic conditions which create the risk of conflict. Some societies will have repeated conflicts, not because of the cumulative legacy of the desire for vengeance, but because war is profitable for some groups."[56]

In fact, although the costs of civil wars on an economy are particularly high (on average as much as a 2.2% decline in growth per annum), there are a number of possibilities for enrichment and profit allowing "various identifiable groups [to] do well out of war".[57] There are several cases where this may happen: war enhances the opportunistic character in business affecting business practices; it increases criminality, affecting 'asset-holding' and forcing people to send their assets abroad; finally, because in civil wars markets become disrupted, information is unreliable and costly and as a result competition breaks down, leaving only a small number of economic agents to monopolise entire sectors of the economy usually in a predatory fashion. There is also the problem of increased rent-seeking predation on trade both from rebels and government officials.

Expected-utility theory as applied to this particular focus of research stems from the proposition that rebels will conduct a civil war if the perceived benefits outweigh the costs of rebellion as was previously mentioned. First, it should be emphasised that this is not the first time that expected-utility has been used in the field of conflict research.[58] The extensive literature on the evaluation of expected-utility theory as regards armed conflict and war provides powerful arguments against over reliance on this theory.[59] A strong argument against it is that at the root of expected-utility theory is the rational-choice model of decision making. As was demonstrated by Thomas Schelling in his seminal book *Strategy of Conflict*, rationality is a very ambiguous concept, something which can easily be attested in such game-theory exercises as 'chicken' or the 'prisoners dilemma', where conditions of uncertainty and incomplete information abound.[60] Recognising the limits of the rationality assumption, the majority of empirical research in the study of conflict has adopted a 'modified rational actor model'. According to Vivienne Jabri,

> "... it is 'modified' since it incorporates subjective expected utilities, recognising the potential diversity of conflict goals which may range from the economic to the ideological, and of subjective probabilities influenced by misperceptions, information distortion and ideological biases ... Such factors as misunderstood signals, perceived changes in the balance of advantage between the protagonists, prior relationships, and the input of allies and interested others could, either singly or in combination, influence the course of a conflict and behaviour therein."[61]

A 'cognitive rationality' approach would seem to be more adequate to the analysis of violent conflicts in that it incorporates "the nature of preferences that parties in conflict express, the dynamic processes involved in changes of preference orderings and the interactive nature of the life cycle of a conflict" taking the complexity of conflict situations into account.[62] Michael Nicholson provides an extensive discussion of the concept of rationality as applied in conflict situations.[63] The following quote adequately describes the '*paradoxes of rationality*',

> "... in much of the analysis of international conflict, particularly that which looks at it as the rational pursuit of goals, violence is viewed as a means to achieve particular ends: it is regarded purely instrumentally...the use of violence is considered a cost, but one which might reasonably be borne in order to attain particular ends ... the cool Clausewitzian view of human motivation is a useful first approximation for the analysis of international behaviour, somewhat akin to the economists' assumption of profit maximisation as a device for explaining business behaviour. However, as a more general approach to human motivation, in particular when violence is relevant, it is *seriously flawed* [my emphasis]. People's attitudes to the use of violence are often ambiguous, ambivalent and complex, and one cannot treat violence simply as an unambiguous cost."[64]

Collective action theory is explained in the work of Charles Tilly, in particular as regards the onset of revolutions.[65] Political elements are central to Tilly's approach: it is the continuous power struggle between those who have decision-making power, and those who have not, that is at the base of political action. Tilly considers that "the passage from individual interests to collective decisions" involves a confluence of shared interests that must be organised and mobilised, in possession and use of adequate resources. Collective political action, including collective violence, will occur if there is sufficient opportunity for it – yet, not solely economic opportunity.

A further criticism of the 'greed theory' is of a methodological nature. Nicholson terms this "sin number 2", part of "six of the commonest objections to the social-scientific approach to the analysis of conflict".[66] This sin

refers to the fact that "the social scientist forgets that statistics require the oversimplification of data, and the forcing of events into common classifications, when it is the differences which are most conspicuous".[67] While this is a problem that frequently arises in the social sciences, in the particular case of the proposition of a 'greed theory' of conflict, oversimplification may lead to misleading results, for example, the non-incorporation of data relative to distributional aspects within the case studies analysed. The unavailability of such data prompted Collier and Hoeffler to rely on per capita income as one of the independent variables. As mentioned above, this leads to the conclusion that higher per capita income reduces the duration of civil war as well as the probability of its occurrence and that as a result civil war is overwhelmingly a phenomenon of low-income countries. Yet, by excluding distributional aspects in their analysis these authors are neglecting the fundamental role that the distribution of resources (hence inequality) within countries and between individuals and groups plays as a source of grievance. This goes against a substantial body of literature that focuses on so-called relative deprivation approaches as well as rank disequilibrium and status inconsistency approaches as causes of armed conflict.

The relative deprivation approach was developed by James Davies[68], the Feierabends (1966), and Ted Robert Gurr[69] to explain individual and group violence. This approach places the relative sense of deprivation as the most important factor in creating grievances and mobilising people for conflict behaviour. At the heart of individual and groups' grievances is the idea of unrealised expectations.[70] In Davies' view, political violence results from an intolerable gap between what people want and what they get: the difference between expectations and gratifications.[71] This discrepancy is a frustrating experience sufficiently intense and focused to result in either rebellion or revolution.[72] Additional causal variables are introduced by Gurr because aggression "must be politicised if it is to appear as collective political violence". These causal variables are the belief in the utilitarian justifiability of violence and protest (attitudes and beliefs that justify aggressive action, because it is expected to help people achieve their political goals, provide utilitarian motivational incentives), and the belief in their normative justifiability (attitudes and beliefs that justify aggressive political actions, because it is intrinsically right or proper, provide motivational incentive for such behaviour).[73]

The point here is not to concur with the relative deprivation approaches' claim of having uncovered the critical causal factor at the root of collective violence. In fact, deprivation, either absolute[74] or relative, is no guarantee that groups will pursue their goals using violent behaviour. Nevertheless, while the evidence on relative deprivation's role is by no means decisive,[75] its focus on distributional aspects provides an additional and plausible explanation as regards triggering mechanisms of violence. Similar to the absolute deprivation approach is the so-called resource-scarcity approach. In diametric opposition

to the 'greed theory', this approach views resource wars as a "violent expression of a distributional conflict associated with the paucity of resources", not as the expression of greed-motivated groups.[76] To this respect, Michael T Klare points out that,

> "... all of these phenomena – increased competition over access to major sources of oil and gas, growing friction over the allocation of shared water supplies, and internal warfare over valuable export commodities – have produced a new geography of conflict, a reconfigured cartography in which resource flows rather then political and ideological divisions constitute the major fault lines."[77]

The reductionist nature of the 'greed theory' is noted by Cilliers in the following words:

> "... although war may have both *intended* (i.e. planned) and *unintended* economic consequences, any analysis that seeks to reduce the study of extensive social conflict to a single determinant should be treated with care. War profiteering, or the economic benefits that may arise during a conflict, is not a new phenomenon but as old as war itself. Historically, economic considerations have been an important *cause* of wars, commercial agendas (the profits made during war) have often served to *perpetuate* conflict, and motivations to prosecute war also *change* over time. But economic considerations have not always predominated and can seldom be used as single-factor explanations."[78]

Therefore the resource-war type, product of 'greed theory', does not seem to allow for a comprehensive understanding of contemporary ongoing armed conflicts.[79] It does point to crucial aspects concerning the probable role that a number of variables may have in the onset of armed conflicts and therefore should be taken into account by the analyst. In this sense, while not sufficient for a comprehensive understanding of contemporary armed conflicts, it does highlight conditions that may facilitate or constrain the choices that groups make in the pursuit of their goals. Vivienne Jabri reinforces this when she says that,

> "... war is (a) a multicausal phenomenon, where different causal sequences may apply to different conflict situations, and (b) a result of decision-making paths which, far from suggesting rationality as defined by strict criteria of consistency, point to the view that rationality is bounded by institutional roles and established norms which impact upon the informational and analytic loops which actors may go through prior to the onset of war."[80]

The general claim that 'greed' is the prime cause of war must be rejected. And in fact, this conclusion seems to be confirmed in Collier and Hoeffler's

latest article on this issue. 'Greed and grievance in civil war' contains an interesting development pointing to the incorporation of both 'greed' and 'grievance' in a combined model.[81] The authors move away from both concepts of 'greed' and 'grievance' introducing the less controversial notions of preferences and constraints.[82] The concept of preferences and constraints drastically changes the nature of the 'greed versus grievance' debate.[83] Nevertheless, the authors maintain their focus on 'the economic' rationale of civil war implied in expected-utility: "both a greed theory and a universal grievance theory predict that the risk of rebellion is increasing in the opportunities for rebel finance." While constraints-based theory is referred to in the shorthand of 'greed', the authors recognise that, in contrast to preference-based theories,"'they do not necessarily literally imply that the motivation for rebellion is exclusively, or even primarily, financial".[84]

For our purposes, a number of important conclusions stem from this. A focus on the constraints that rebel organisations face to mount a credible and effective rebellion is critical for the understanding of the onset and maintenance of rebellion. By looking at the effects that changes in the levels of different types of constraints have on the probability of war occurrence, a clearer understanding of conflict life cycles may be achieved. The first constraint considered refers to the size of rebel organisations in that "only large rebel organisations generate casualties on the scale which defines civil war".[85] For this, rebel groups must mobilise people, as well as secure a large number of weapons. They must raise finance either through extortion, donations from diasporas or support from hostile governments. Following Collier's earlier work, rebel groups' extortion is said to happen primarily through the plundering of primary commodity exports, for the same reasons defined above.[86] Furthermore, rebel organisations face coordination costs quite different from those that governments face.[87]

Turning to 'grievance rebellion', the authors focus now on preferences to inquire the extent to which "the initiation of rebellion [is] determined by differences in objective grievances". Here the authors look at inter-group hatred, political exclusion and vengeance. The authors did not find that inter-group hatred is greater in fractured societies than in homogenous ones. As before, the crucial variable is polarisation.[88] Regarding political exclusion, the authors used Ted Gurr's Polity III data set and concluded that "there is a very large difference in the extent of democracy between conflict societies and peaceful societies: on average, conflict episodes are preceded by a democracy score less than half that which precedes peace episodes".[89] They also investigate on the role of ethnic dominance (when one ethnic group constitutes a majority, but not an overwhelming majority), where they found unsignificant results. Marginalisation of the poor, which may be inferred by a high degree of economic inequality, also showed no significant results in that a survey of 15 violent civil conflicts concludes that "wars today are rarely

started by the poor and marginalised people united in battle as an expression of their deep-seated striving for a just society".[90]

In conclusion, confirming the importance of both 'constraints-based theory' and 'preferences-based theory' as regards the 'greed versus grievance hypothesis', Collier and Hoeffler posit that the "aim of our econometric tests is to arrive at an *integrated model which gives an account of conflict risk in terms of all those constraints and preferences which are significant* [my emphasis]".[91] They conclude that "while the greed model is superior, some elements of the grievance model are likely to add to its explanatory power" and that therefore they propose to "investigate the combination of the two models". In fact, the authors actually find that statistically, the combined model is superior although several variables are completely insignificant.[92]

The statistical findings discussed above are certainly important as regards understanding some of the factors that affect the probability of the occurrence of armed conflict. The role of income, natural resource endowment, population characteristics, ethnic and religious fractionalisation, education levels, geography, as well as previous conflict are all factors that, either as preferences or constraints, affect the likelihood of war. In particular, natural resources can strongly affect the probability of armed conflicts, their duration, course and impact. While this has been historically the case, it is particularly relevant at present, due to reduction in foreign assistance to governments and rebel groups as a result of the ending of the Cold War. Philippe Le Billon points out that "belligerents have become more dependent upon mobilising tradable commodities, such as minerals, timber or drugs, to sustain their military and political activities".[93]

This has important tactical consequences in the conduct of hostilities in the sense that resource-rich areas become increasingly more important and therefore the focus of both incumbent authorities and rebel movements tends to be there centred. It changes traditional guerrilla tactics, from relying on mobility, to the establishment of strong-holds. It also affects the economies of the countries where resources play an important part in armed conflict through the criminalisation of resource exploitation, the development of extensive war economy networks and therefore the possibility that armed conflicts in some countries become strongly intertwined with the control and maintenance of these exploitation networks. Economic interests may in this way overcome political ones, sustaining conflicts that may be profitable for some individuals and groups. As Billon rightly puts it, it may even "involve accommodation between opposing factions who find a mutual benefit in a 'comfortable military stalemate', leaving the territory and its population under a no-war-no-peace situation".[94] As a consequence, resource exploitation by groups in conflict strongly affects the chances for resolution.

The Multi-Level Nature and Dynamic Life Cycles of Armed Conflicts – Towards an Analytical Framework

While all of the above are important factors in the analysis of contemporary armed conflicts, they are not the only variables involved in the vast majority of ongoing civil wars. The role of resources and therefore of a resource-war type must be properly equated with the very many other factors that characterise and affect contemporary armed conflicts.

Within the field of international relations, discussion of the causes of war has generally tended to follow what is termed a 'level-of-analysis' orientation.[95] 'Levels-of analysis' were originally proposed by Kenneth Waltz in his very influential *Man, the state and war*.[96] Waltz suggested that an appropriate way to discuss and critically evaluate the multitude of approaches and theories on the causes of war was to divide them in terms of where along the social spectrum they locate the fundamental nexus of war causality. Within the vast literature on the causes of war, Waltz identified three main orientations as regards what for each of the authors discussed was the critical cause of war. Terming these orientations "images of international relations", Waltz divided the extensive literature under discussion into three headings: the "individual image", the "nation-state image" and finally the "state-system image".[97]

The critical contribution of *Man, the state and war* concerns Waltz's proposition that all three images are crucial for an understanding of the causes of war. In his own words, "some combination of our three images, rather than any one of them, may be required for an accurate understanding of international relations ... in other words, understanding the likely consequences of any one cause may depend on understanding its relation to other causes".[98] That a consideration of all three images is of critical importance is clearly revealed by the following passage: "so fundamental are man, the state, and the state system in any attempt to understand international relations that seldom does an analyst, however wedded to one image, entirely overlook the other two". In fact, he says that "the vogue of an image varies with time and place, but no single image is ever adequate" and that the result of a focus on a single image may "distort one's interpretation of the others".[99] Waltz recognised the fact that war and armed conflict have more than one cause and that "causes can be found in more than one type of location".[100] While the analyst may start from one of the levels identified, the need for taking into account all three images is critical in that "the prescriptions directly derived from a single image are incomplete because they are based upon partial analyses. The partial quality of each image sets up a tension that drives one toward inclusion of the others".[101]

Dennis J D Sandole recently attempted to develop an 'empirical version of Waltz' in his ground-breaking book entitled *Capturing the complexity of*

conflict.[102] Sandole's multi-level, multidimensional framework includes '"he *decision-making, societal,* and *trans-societal* levels", corresponding to Waltz's individual, state and international (and inclusive of North's, 1990, global ecological) levels.[103] Such framework is developed "in response to the fragmented, bivariate nature of quantitative studies of war" as "a multi-level map and pre-theory of variables operative at the trans-societal, societal, and decision-making levels that may be relevant to the initiation and escalation of violent conflict and war".[104]

Sandole investigated the role of variables located in different levels throughout the life cycle of conflicts, which he divided in to three successive periods: early, intermediate and late stages of a conflict systems' development.[105] Furthermore, Sandole found that it is critical to distinguish between *conflict-as-startup conditions* and *conflict-as-process*. The trend found across the three stages of conflict systems' development of self-stimulating/self-perpetuating conflict processes is extremely important in evaluating the relationship between different variables located at different levels through time. 'Conflict-as-startup conditions' is seen to generate 'conflict-as-process', and "once process comes to characterise conflict, it does not matter how (or when) the conflict started". As a result, "different start-up-conditions can lead to the same process (initiation, escalation, controlled maintenance)".[106] Conflict-as-process means that after some point in the conflict cycle, conflict itself may become the main source of its own continuation and protractedness.

Lund refers to this in the following terms: "*once some level of significant violence has begun* [sic], it is prone to escalate because an interactive process of attack and retaliation leads to a self-perpetuating cycle."[107] In this respect, Christopher Mitchell posits that,

> "... conflict behaviour itself can also be an important influence in affecting the other two components, especially if it involves high levels of violence, and damage or loss of participants. Such behaviour will, almost inevitably, involve an increase in the levels of anger, hatred, resentment, fear or desire for revenge on the part of those suffering damage. Over time, the behaviour of the opposing party may appear to become, in itself, sufficient reason for continuing and intensifying one's own conflict behaviour, often producing an analogous impact on the attitudes and subsequent behaviour of the adversary ... Conflict behaviour therefore may become the source of future conflict attitudes and behaviour, irrespective of any future development of mutually incompatible goals."[108]

If factors besides 'start-up conditions' become part of conflict cycles, it is necessary to probe the dynamic processes of conflicts themselves. Vivienne Jabri talks about the 'war mood' that takes hold when conflicts escalate towards violence,

> "... once violent destruction of the enemy and its valued resources comes to define a relationship, the rules of the game or the rules of 'everyday life' change. Behaviour that is unacceptable in peacetime becomes legitimate in times of war. Specifically killing, torture, rape, mass expulsions, ethnic cleansing and the creation of concentration camps are explained by such terms which essentially state that while war goes on we must expect such occurrences, or simply not be surprised by them."[109]

This distinction is critical in the sense that over time 'conflict-as-process' may be more important than 'conflict-as-startup conditions'. Therefore, it is not sufficient to statically identify operating variables worth looking at (what Sandole termed conflict-as-startup conditions) but also, and perhaps equally crucial, to identify the dynamic processes that may overtake these static start-up conditions (conflict-as-process).[110] That the identification of a conflict's 'start-up conditions' is critical is evidenced by the gradual incorporation into mainstream conflict analysis of what are variously termed 'underlying causes'[111], 'structural dimensions or sources of latent/open conflict'[112], 'structural components'[113] and 'structural factors or root causes' as will be seen below.[114] This has been particularly the case in the field of conflict early-warning systems, confirming our assertion that single-cause explanations of violent conflict and war should be avoided.[115] In fact, contemporary conflict analysis has found that conflicts tend to develop in environments characterised by structural factors, which "form the pre-conditions of crisis situations, such as systemic political exclusion, shifts in demographic balance, entrenched economic inequities, economic decline and ecological deterioration".[116]

If, following Waltz, Scott, Levy and Sandole, explanations located at different levels should be added together and assigned relative weights in relation to any given analysis (bearing in mind that the relative weight of any level is strongly related to the particular developmental phase of any particular armed conflict), the choice of an initial analytical level seems to be related primarily with whether that particular level, in the words of Buzan, tells the analyst more about any given event or phenomenon.[117] More importantly, while the analyst may start from one of the levels identified, it is crucial to take into account all other levels. This is what Waltz meant when he said that "the partial quality of each image sets up a tension that drives one toward inclusion of the others"

We will now turn to 'new wars', 'wars of the third kind', 'intra-state wars', 'societal wars' and 'non-international wars'. We have seen that actors in these conflicts range from conventional armies to para-military units, local warlords, mercenary groups and even criminal gangs. As was previously highlighted, in order to understand these conflicts, analysts are increasingly turning to the state level, in particular to the groups in conflict and their claims.

That analysis of these wars should begin at unit level by looking at conflict groups themselves is clear.[118] Because for the majority of groups involved in the increasing number of 'new wars' or 'wars of the third kind', identity is presented as the basis for struggles for self-determination, this suggests that, following Edward Azar, "the most useful unit of analysis in PSC [protracted social conflict] situations is the identity group – racial, religious, ethnic, cultural and others".[119] In fact, in sharp contrast to Collier et al's 'greed' theory of conflict discussed above, Azar hypothesises that,

> "... the source of protracted social conflict is the denial of those elements required in the development of all peoples and societies, and whose pursuit is a compelling need in all. These are security, distinctive identity, social recognition of identity, and effective participation in the processes that determine conditions of security and identity, and other such developmental requirements. The real source of conflict is the denial of those human needs that are common to all and whose pursuit is an ontological drive in all."[120]

Following John Burton's approach to the centrality of 'basic human needs' in conflict theory,[121] Azar considers basic needs such as security, communal recognition and distributive justice as primordial and therefore non-negotiable, emphasising the fact that these needs are expressed around religious, cultural or ethnic communal identity. He clearly recognises that the problem resides in framing contemporary conflicts in terms of material interests, such as commercial advantages or resource acquisition, while empirical evidence suggests that "they are not just that". It is crucial to understand the way in which groups or quasi-groups organise themselves as they become aware that they are in opposition to another group or groups. This self-awareness as collectivity-in-opposition relies on contact between individual members of groups. In this sense, a group is not defined by common interest alone. It must rest on communication and interaction. In order to understand the processes by which groups form some sort of collective entity and become conscious of that through sharing a measure of grievance and dissatisfaction,[122] a behavioural or interactional approach to conflict dynamics is needed. As Mitchell points out,

> "... conflicts are not static phenomena, and hence the dynamic aspects of conflict which alter both structure and interplay relationships over time, are essential aspects of any satisfactory analysis."[123]

In this respect, the now classic work by Louis Kriesberg titled *Social Conflicts*,[124] introduces a behavioural perspective by looking at "social conflicts as social relationships":

> "... at every stage of conflict the parties interact socially; each party affects the way the others act, not only as each responds to the others

> but also as each may *antecipate* [sic] the responses of the others. Even the ends each party seeks are constructed in interaction with adversaries."[125]

Furthermore, Kriesberg emphasises that any particular conflict situation will be the result of many interlocking conflicts. The existence of multiple interlocking conflicts produces the interconnections between different stages in the sense that each conflict is part of a larger one and each one is accompanied by several others, so that every conflict unit may be at a particular stage in the main conflict, but at a different stage in other related non-focal conflicts. For example, processes of anticipation and feedback affect each conflict stage, creating interconnection and interdependence between stages.

Processes of anticipation and feedback in conflict cycles are the vehicles for what Sandole termed self-stimulating/self-perpetuating conflict processes. In this way, defensive actions may be interpreted as a threat (so-called 'security dilemma'), which helps create counteractions and conflict spirals.[126] Furthermore, a permanent characteristic of conflict processes is what is know as 'misperception', particularly regarding, as Levy points out, "misperceptions of the capabilities and intentions of adversaries and third states".[127] Misperception also affects the way parties view themselves. As Mitchell points out, "in many situations, people are convinced by leaders (or manage to convince themselves), that their group or nation's reputation as a strong-but-wise, tough-but-peace loving entity is at stake and that this, rather than the actual details of any current problem, is what matters".[128]

The size, composition and in particular ideological outlook of conflict groups are critical, helping explain their choice of a particular approach to conflict. A group's size, its norms of participation and its experience in previous efforts at redressing grievances are important characteristics. Conflict groups exhibit different degrees of organisation and boundary clarity. In this sense, while a state will have clear and demarcated boundaries, an ideological or ethnic group may present a lesser degree of boundary clarity. This is relevant in terms of understanding how and on what basis participants in different conflict groups are mobilised and organised for conflict behaviour. The same applies for the degree of organisation, which varies immensely from one group or potential conflict party to the next. In fact, the degree of organisation of a conflict group also helps explain recruitment, both actual and potential, as well as variations in the position of leaders.[129] It is therefore critical to understand how conflict groups are formed, what their perceived grievances, how they formulate their goals and finally how they pursue their goals.

In this regard it is critical to look at the decisions and actions of elites. Brown considers that "although many internal conflicts are triggered by internal, mass-level factors, the vast majority are triggered by internal, elite-level

factors" adding that "in short, bad leaders are the biggest problem".[130] Whether leaders based their actions on ideological beliefs (concerning the organisation of political, economic, and social affairs in a country); whether their actions are essentially a result of power struggles that may or may not result in assaults to state sovereignty, the role that individual leaders and elite groups play on the onset and escalation of disputes is undeniable. This line of reasoning looks at the ways in which political elites often promote conflict "in times of political and economic trouble in order to fend-off domestic challengers".[131] Analysing patterns of contemporary African politics, Patrick Chabal and Jean-Pascal Daloz term this the "instrumentalisation of disorder", which:

> "... in brief, it refers to the process by which political actors in Africa seek to maximise their returns on the state of confusion, uncertainty and sometimes even chaos which characterises most African polities. Although there are obviously vast differences between countries in this respect, we would argue that what all African states share is a generalised system of patrimonialism and acute degree of apparent disorder, as evidenced by a high level of governmental and administrative inefficiency, a lack of institutionalisation, a general disregard for the rules of the formal political and economic sectors, and a universal resort to personal(ised) and vertical solutions to societal problems."[132]

Likewise, issues in contention also partly explain the *complexity* of armed conflicts, in that they may be perceived as being realistic or unrealistic by the parties involved. For example, a notable feature of many armed conflicts is that "parties involved often disagree on what the conflict is 'really' about, one side defining the issues as being a set of (to them) salient problems, the other claiming the actual core issues as something completely different".[133] Nevertheless, groups in conflict have varying degrees of integration between them in that they might have a close relationship or not communicate at all. Within existing relationships, conflicting issues may constitute only a fraction of the overall issues present, but they may also constitute the core of the relationship. Interdependence, for example, opens channels of communication allowing parties to more openly debate their differences and influence one another. All conflict situations have therefore a mix of conflicting interests and cooperative ones and it is very rare to find a pure zero-sum conflict. Even conflicts which may seem zero-sum can be "transformed when the issue in contention is fractioned; that is, the disputed matter is broken up into many components".[134]

Differences in the way parties perceive their power in relation to their adversary as well as the resources they have available strongly affect their relationship and may in some instances be themselves the basis for a potential conflict situation.[135] Differences in power affect the way parties formulate

goals, anticipate consequences of their actions and eventually conceptualise possible outcomes of their actions and interactions with other parties in conflict. Conflict groups also vary immensely in the resources they have at their disposal to use coercive, rewarding, or persuasive inducements.

Finally, another major variant in the relations between conflict groups is the social system that they constitute or to which they belong. The social context in which the parties to a conflict exist is not only a source of their discontent but also helps provide the criteria for evaluating conditions and possible changes. The formulation of goals is channelled by the contexts within which the contending parties exist. Within the group's context, an important aspect characterising relations between antagonists is the degree to which conflict regulation is institutionalised. Kriesberg highlights this in the following way:

> "... if there are generally supported and well-understood procedure for handling disputes, matters of possible contention tend to be viewed as competitive, and not conflicting, or as part of a larger exchange relationship, and not simply as a zero-sum relationship."[136]

If the social context in which the parties to a conflict exist is both a source of their discontent as well as the channel for their actions, it is important to move up one level from the conflict group's level. Azar's "protracted social conflict" concept emphasises that its sources lay predominantly within states with four clusters of variables identified as preconditions for their transformation to high levels of intensity: communal content, deprivation of human needs, governance and the state's role, and finally, international linkages.[137] The need to consider various causes located at multiple levels of analysis is clearly evident. While analysis focused in the first instance on identity groups, moving a level up to the role of the state is necessary for "it is the relationship between identity groups and states which is at the core of the problem".[138]

We must now turn to the state level in order to understand both the underlying as well as the proximate conditions underlying conflict occurrence.[139] Consequently, the analysis of the conditions underlying conflict which are variously termed in the literature as 'underlying causes'[140], Sandole's 'conflict-as-startup conditions', Goodhand et al's 'structural dimensions or sources of latent/open conflict'[141], Charles King's 'structural components'[142] or Waltz's 'permissive or underlying causes of war', must be considered jointly with the 'permissive' or 'proximate' causes and triggers causing conflict emergence, that is, the stage when parties become aware that they have incompatible goals, thereby transforming what were underlying factors into manifest issues. This is importance for while cleavages are at the basis of group awareness and group formation, manifest conflict issues are fundamentally a product of group interaction and inter-group relations. Because

our focus is now at the level of the state, Michael Brown's approach to 'underlying conditions' and 'proximate causes' of 'internal conflict' seems appropriate as a general framework for looking at these conditions. This framework is presented in the figure below.

Figure: Underlying causes of internal conflict[143]

Underlying causes	*Proximate causes*
Structural • Weak states • Intra-state security concerns • Ethnic geography	• Collapsing states • Changing intra-state military balances • Changing demographic patterns
Political factors • Discriminatory political institutions • Exclusionary national ideologies • Inter-group politics • Elite politics	• Political transitions • Increasingly exclusionary ideologies • Growing inter-group competition • Intensifying leadership struggles
Economic/social factors • Economic problems • Discriminatory economic systems • Modernisation	• Mounting economic problems • Growing economic inequities • Fast-paced development and modernisation
Cultural/perceptual factors • Patterns of cultural discrimination • Problematic group histories	• Intensifying patterns of cultural discrimination • Ethnic bashing and propagandising

As was discussed previously, the vast majority of contemporary armed conflicts occur in underdeveloped countries that may be undergoing rapid modernisation processes or political transitions as well as in countries characterised by state weakness and state decay. Many analysts of internal conflicts have pointed to state weakness as a main source of contemporary conflict.[144] The problem of weak and failed states should be looked at from the perspective of political legitimacy as well as whether they possess institutions of government capable of exercising control over the population and totality of the territory under their jurisdiction.[145] The question of legitimacy and efficiency are particularly acute. As pointed out by Van de Goor, Rupesinghe and Sciarone,"'the phenomena of weak or failed states in the 'Third World' should thus be related to the intra-state relations and the capacity of the state – the central government – to keep to the path of state-formation".[146] In addition, problems of state weakness seem to be endemic to underdeveloped, former colonial countries. Countries with colonial backgrounds, arbitrary setting of boundaries by

external powers, lack of social cohesion, recent emergence into juridical statehood and underdevelopment are potentially vulnerable to conflict. In such situations, processes of state building are inevitably conflictual and the potential for conflict is furthermore exacerbated by attempts at nation building. Comparing contemporary processes of state making and nation building with the modern European experience, Mohammed Ayoob points out that "national states that have performed successfully over a long period of time and therefore knit their people together in terms of historical memories, legal codes, language, religion, etc., may evolve into nation-states or at least provide the necessary conditions for the emergence of nation-states, but they are not synonymous with the latter".[147]

Situations characterised by colonial legacy and what Azar termed "weak societies" (disarticulation between state and society), are viewed by Miall et al as "associated with the prevalence of conflict, particularly in heterogeneous states where no overarching tradition of common and juridically egalitarian citizenship prevails".[148] Explanations focusing on colonial legacies highlight that the post-colonial predicament, as expressed by attempts at post-independence nation building, is among the main causes of contemporary warfare. This predicament would for example include power structures devised by former colonial rulers, usually reliant on unified structures controlling a diversity of regional peoples or ethnic and tribal groups; situations where the former colonial power actively supported a particular ethnic group; or the power vacuum created after hasty decolonisation leading to competition for power, control of natural resources and territory amongst rival parties, peoples or ethnic groups.[149] To this respect Rupesinghe et al point out that,

> "... in Africa particularly the struggle for independence, dominated by the mixed urban population, concentrated on the black-white divide. Inter-tribal differences, were, in effect, overlooked as people joined forces in the fight against colonialism. But colonial systems of governance relied on a unified central structure controlling a diversity of regional tribal groups. As colonial power ebbed away, competition for central state power amongst rival tribes intensified. Democratisation and individual freedoms were never allowed to flourish so long as the power of regional native authorities and national politics was split along tribal lines. In effect, strong patron-client relations, akin to traditional power structures, developed at the national level ..."[150]

In situations where state structures are unable to provide for the satisfaction of basic needs (physical security, access to political, economic and social institutions, acceptance of communal identity), individuals tend to revert to alternative means in the fulfilment of their needs. We have seen above that self-awareness as a collectivity, a pre-determinant of group formation,

depends on the existence of cleavages that serve as the basis for collective self-identification and organisation. In addition we discussed how these cleavages and divisions may be based on nationality, ethnicity, ideology, class, religion, age or gender, and so on. Jack Snyder, for example, relates the development of ethnic nationalism to situations "when institutions collapse, when existing institutions are not fulfilling people's basic needs and when satisfactory alternative structures are not readily available".[151] State weakness and state collapse compel individuals and groups to provide for their own needs. As Brown points out,

> "... if the state in question is very weak or if it is expected to become weaker with time, the incentives for groups to make independent military preparations grow. The problem is that, in taking steps to defend themselves, groups often threaten the security of others."[152]

Whether or not a conflict escalates to the point where violence is used is more related to the political system, and in particular to the degree to which institutions of government are discriminatory or based on exclusionary ideologies. As Edward Azar points out, "... most states in protracted social conflict-laden countries are hardly neutral" in that "political authority tends to be monopolised by a dominant identity group or a coalition of identity groups" and "these groups tend to use the state as an instrument for maximising their interests at the expense of others ... the means to satisfy basic human needs are unevenly shared and the potential for PSC increases."[153]

An analysis of the political system is therefore crucial if a complete understanding of a conflict situation is to be achieved. The type of regime and political system, its ideological underpinnings, the legitimacy and representativness it enjoys, strongly affect patterns and types of relations with other societal actors. Authoritarian, repressive, exclusionary regimes are naturally more likely to create dissent and therefore increase the propensity for conflict. The ideological underpinnings of a regime affect the way in which it relates to the various societal groups as well as the way in which conflicts are resolved. Exclusionary regime ideologies based on ethnic, religious, political and class distinctions contribute to the discrimination of sectors of society, by preventing the "state from responding to, and meeting, the needs of various constituents".[154] and therefore increase discontent. To this respect, Mitchell points out that,

> "... social structures are thus likely to be created which, given the values of those involved and the inability of that society to produce more of either the material or positional goods in dispute, lead to frequent, repetitive and often intense conflicts across permanent cleavages within the social structure, as parties pursue goal incompatibilities that (in a very basic sense) arise from that structure or set of values."[155]

Economic factors are also crucial, underlying and proximate causes of contemporary armed conflict. We have referred to theories of relative deprivation, 'greed'-motivated rebellions, and the role of rising expectations above. As Miall et al rightly point out, "in the economic sphere, once again few would dispute Azar's contention that PSC tends to be associated with patterns of underdevelopment or uneven development".[156] Rapid transitions amid poverty and social exclusion, high unemployment and at times heavy dependence on single-commodity exports, potentialise vulnerability to armed conflict. In addition to distributional conflicts within societies associated with resource scarcity, the existence of natural resources that may be easily extracted and traded (timber, minerals, oil) may potentialise the vulnerability to conflict. As Michael Brown points out,

> "... unemployment, inflation, and resource competitions, especially for land, contribute to societal frustrations and tensions, and can provide the breeding ground for conflict. Economic reforms do not always help and can contribute to the problem in the short term, especially if economic shocks are severe and state subsidies for food and other basic goods, services, and social welfare are cut."[157]

Economic factors are particularly acute when they are associated with patterns of discrimination between groups. The perception by some groups that there are strong unequal economic opportunities and access to resources, as well as vast differences in standards of living between groups, will contribute to a sense of grievance. In addition, rapid modernisation processes may increase the conflict vulnerability of a particular society by causing profound structural changes, migration and urbanisation, among others.[158] These patterns of discrimination also affect groups culturally and socially. Access to education, recognition of minority languages and costumes, social stereotyping and scapegoating based on cultural and social characteristics of groups all contribute to deteriorating the relations between different social groups and increase the propensity for conflict.

Finally, conflict analysis must also take into account the regional as well as international levels and the ways in which they affect particular conflicts. This is what Edward Azar called "international linkages", one of the four main clusters of variables contributing to the occurrence of protracted social conflicts.[159] As Michael Brown points out, "although neighbouring states and developments in neighbouring countries rarely trigger all-out civil wars, almost all internal conflicts involve neighbouring states in one way or another".[160] Third-party involvement towards the escalation or de-escalation is therefore critical as regards the analysis of the vast majority of contemporary armed conflicts. In this way, third parties may escalate a fight by supporting contending parties, or de-escalate a fight through attempts at a peaceful or cooperative resolution of the situation. In this sense,

> "... outside parties are not merely potential and then actual partisans. Their intervention and active involvement is much more complex than making a simple choice of sides. Their intervention changes the dimensions of the conflict and the possible pay-offs for all parties ... outside parties have their own interests and these affect their conduct in any given conflict. If the outside party is sufficiently powerful relative to the contestants, it may be able to impose its terms upon the contending parties ..."[161]

It should be noted that the effects of the regional level on the occurrence and development of a particular armed conflict should be looked both from the perspective of the possible impact that a conflict has in its neighbourhood, through processes of 'spillover' and 'contagion', as well as the actions and policies that neighbouring states have in regard to the conflict. In this sense, an analysis that takes both processes into account seems the best way forward. On the one hand, the effects that conflicts have on neighbouring states may include refugee problems, economic problems (disruption of regional trade, communications, and production networks), military problems (the use of a neighbouring state's territory for the trans-shipment of arms and supplies; the use of a neighbours territory by rebel groups as bases of operations and sanctuaries; the launch of attacks from neighbouring states) and therefore contribute to regional instability. On the other hand, neighbouring states also may intervene in these conflicts through defensive and protective interventions, opportunistic interventions, as well as more benign involvement such as humanitarian intervention and peace making interventions.[162]

Ecological Sources of Conflict

The six chapters of this book focus broadly on two volatile regions in sub-Saharan Africa: the Greater Horn of Africa, including Somalia, Ethiopia and Sudan, and the Great Lakes region, with Burundi, Rwanda and the Democratic Republic of Congo. The geographical boundaries of these conflicts span a much wider reach and include a broader constellation of actors with diverse interests, than is typically appreciated. Hence, the interfaces between different conflicts in these regions are identified. At the same time, case studies in each chapter provide a narrower and more nuanced perspective.

A number of linkages bind different conflicts in the Great Lakes and Greater Horn to national, regional and international contexts. For example, conflict between herders and farmers in the Awash Valley in Ethiopia and in the Nile flood plain in the Equatoria province of Sudan have linkages to wider regional conflicts involving Sudan, Ethiopia, and Egypt. These conflicts involve the sharing of the Nile waters, but include other important sources of conflict, as well.

Similarly, conflict involving local communities in eastern Congo over access to and control over natural resources are linked to the national conflict involving the governments of the Democratic Republic of Congo, Rwanda, Burundi, Uganda, Angola, Namibia and Zimbabwe, as well as rebel movements and militia groups such as the Mai Mai. At the level of regional conflict, the governments of Rwanda, Uganda and the Democratic Republic of Congo have established a number of alliances with local Congolese communities, rebel movements and local militias for political expediency. A key strategy of these alliances is to gain leverage in the struggle to control the extraction, marketing and export of the country's abundant natural resource wealth.

Jean Bigagaza, Carolyne Abong and Cecile Mukarubuga's chapter on "Land scarcity, unequal land distribution and conflict in Rwanda"provides a constructivist approach to a conflict that has hitherto been portrayed as a textbook case of ethnic conflict. In so doing, the authors reveal how ethnic mobilisation by elite groups served an underlying competition for scarce resources. The authors focus on land scarcity and unequal land distribution as one of the fundamental causes of competition between Rwanda's elite groups. More importantly, they argue that Rwandan elites are largely responsible for characterising as an 'ethnic conflict' the more complex struggle for the control of the state. This study highlights the need to deconstruct definitions such as 'ethnic conflict', emphasising the need for greater focus on the underlying motivations of groups in conflict. This issue remains at the centre of current efforts at peace building in Rwanda, which must necessarily deal with the issues of land and access to resources if an adequate response is to be developed in the aftermath of the conflict. The following words by Michael Brown may be considered relevant,

> "... many internal conflicts are not driven by ethnic grievances at all, but by power struggles, ideological crusades, and criminal agendas. In short, the 'ancient hatreds' explanation for the causes of internal conflict cannot account for significant variation in the incidence and intensity of such conflict... the problem with 'ancient hatreds' theorising is not that historical grievances are irrelevant but that a single factor is said to be responsible for a wide range of developments. To put it in more formal methodological terms, a single independent variable is said to govern a wide range of dependent variables. This is asking a lot of any one variable of factor."[163]

Johnstone Summit Oketch and Tara Polzer explore similar themes of land scarcity and inequality to unpack the oft-cited 'ethnic conflict' in neighbouring Burundi. They focus on coffee production, which accounts for 80% of Burundi's foreign exchange receipts. Over-reliance on a single cash crop leaves this small country extremely vulnerable to volatile global markets, but

also puts pressure on subsistence farmers in conditions of land scarcity. A predatory state-dominated system links the production and marketing of coffee to the country's long running civil war. Northern consumers commonly pay in excess of US$ 10 per kilo of premium *arabica* blend Burundian coffee. Hutu peasants who produce *arabica* coffee beans are paid a painfully small fraction of this. The Tutsi dominated *Office des Cultures Industrielles du Burundi* (OCIBU) regulates the coffee sector and maintains a monopoly over coffee export and marketing. The OCIBU consistently fixes low producer prices paid to coffee farmers. The OCIBU exports the coffee to international coffee boards in New York and London who sell the coffee beans to corporate coffeehouses. Coffeehouses grade and process the coffee beans into the final product for sell to commercial outlets. This hierarchy of intermediaries greatly disadvantages primary producers, and is a potent linkage coupling the production and marketing of coffee to civil war to control the state.

This kind of exploitation is a feature of coltan mining in the Democratic Republic of Congo, as described by Celine Moyroud and John Katunga in Chapter 4. Coltan is a mineral used in the production of high technologies including mobile telephones and laptop computers. The authors describe how extraction of coltan in North and South Kivu provinces involves an intricate network of individual extractors and their superiors, rebel authorities, regional governments, regional and international air transporters, and transnational corporations. They argue that the extraction of coltan in the Kivus is linked to the conflict through a particularly illicit and profiteering set-up involving regional and international transnational corporations and governments. They also expose the severe damage being done to the ecology of these areas, described by international observers as "ecocide".

The long-standing conflict in Sudan has also been complicated and protracted by the recent discovery of a valuable natural resource: oil. In Chapter 5, Paul Goldsmith, Lydia A. Abura and Jason Switzer show how oil exploration has given new impetus to the government of Sudan's determination to forestall a lasting *rapprochement* with southern demands for autonomy.

Their case studies show how oil exploration is displacing Dinka, Nuer and other southern communities from their homes, while at the same time polluting the ecological base upon which subsistence livelihoods are based. Oil production in Sudan generates revenue that is used to sustain armed conflict. The effect has been to strengthen the position of the government of Sudan against the southern rebel movements. The authors describe how ongoing peace initiatives have been frustrated as the position of the government of Sudan hardens in the light of expanding oil production and increasing government revenue.

Land and natural resource use systems are a powerful linkage between overall natural resource scarcity and 'low intensity' conflict in the Horn of Africa, including Sudan, Ethiopia and Somalia. The structure of natural

resources in the region is uneven: pockets of comparatively abundant natural resources along watercourses and in higher elevations are embedded in a highly stressed overall ecological region where natural resource scarcity is common. Interacting groups of livestock herders in the Horn of Africa have adapted to persistent limitations through frequent movements between different macro-ecological zones, and through reciprocal resource sharing agreements between different groups. However, increasing ecological scarcity and the expansion of agricultural production into key resource environments undermines the sustainability of pastoralist resource use systems in the Horn.

The ecological structure of land and natural resources is conditioned to a large degree by uncertain variations in rainfall, cloud cover and temperature. Stress and limitation are common features of environments in Africa, and, furthermore, in many cases drive ecological systems. Consequently, an increase or decrease in the supply or quality of critical natural resources over short periods is common.

The second part of Chapter 5 on Sudan, and Chapter 6 on Ethiopia, examines how access to and control over the allocation of Nile waters has been a source of conflict between the Nile Basin countries. Egypt and Sudan were allocated the entire flow of the Nile under the Nile Waters Agreement of 1959. The agreement excluded upstream riparian states, including Ethiopia. Under the agreement, changes in the allocation of water rights are permissible only in cases where Sudan and Egypt consent. Official Ethiopian policy does not recognise earlier agreements, which the government of Ethiopia claims do not affect its rights to use Nile waters within its territory to pursue its own development objectives. At the same time, Egypt and Sudan policy opposes any changes to the allocation of water rights as they currently stand.

Civil war in Sudan features strongly in basin-level competition to control Nile waters as well. Egypt, in particular, is deeply concerned at the possible implications for existing allocations of Nile waters were south Sudan to gain independence. The allocation of Nile waters is an important underlying issue complicating ongoing peace negotiations for Sudan, in which both the governments of Egypt and Sudan are actively participating.

Ethiopia's predicament is analysed in detail by Fiona Flintan and Imeru Tamrat in Chapter 6. They trace cycles of drought and famine that have plagued Ethiopia for many decades, leading to recurrent humanitarian crises. They predict that food insecurity will worsen in Ethiopia as the population expands. This concern underlies the government of Ethiopia's claim to make better use of their relatively abundant access to the Nile waters. The expansion of irrigated agriculture in the Ethiopian plateau is a critical part of Ethiopia's agricultural policy in order to increase food production to meet growing needs. This chapter examines the implications of this policy, both for regional politics in the Horn of Africa, and for local pastoralist communities displaced from the Awash Valley by such developments.

The importance of decentralisation of decision making for pastoralists in Somalia is emphasised in Chapter 7. Ibrahim Farah, Abdirashid Hussein and Jeremy Lind show that *deegaan*, or a land base and its resources, is significant to understand the conflict in Somalia. The Somali conflict involves many clans and sub-clans. Shifting alliances were formed between different clans and sub-clans to gain leverage in the conflict and to stake stronger claims to particular *deegaan*. In particular, the ecological conditions of the Jubbaland region in southern Somalia are rich compared with the rest of the former democratic republic, and they provide a major source of income and sustenance to Somalis. Control of these resources is a major source of the conflict in Jubbaland, as this chapter shows.

From the foregoing, it is certain that there is no generic ecological conflict factor in sub-Saharan Africa. Instead, there is a tremendous variety of ecological issues that are relevant to conflict analysis. These include scarcity or abundance of natural resources, environmental change, production and marketing of natural resources, and the sharing of benefits from natural resource exploitation.

Three lessons are important to consider in relation to the design and implementation of conflict prevention and management policies. One, conflict in sub-Saharan Africa is structurally and functionally open. Conflicts in sub-Saharan Africa operate within broader regional and international systems. Apparently isolated conflicts are in reality intimately linked to broader political and economic contexts involving multiple, and often times, competing individuals and group actors, and interests. The institutions, policies and legal regimes governing these, moreover, are overlapping and mixed. Policy makers, therefore, must explicitly recognise the role of external engagers, and incorporate their involvement in policy formulation and interventions.

Two, conflict systems in sub-Saharan Africa are operationally complex. The levels of engagement and the number of variables underlying conflict are many; and more often than not the operation of conflict is uncertain. Tracing the role of different conflict variables, including ecological, demands scrupulous policy attention to such operational vagaries.

Three, the ecological variable is clearly an important factor in conflict. It is critical that policies consider how the ecological variable triggers and sustains conflict, as well as how it generates conflict. Moreover, it is also important that policy research and analysis trace the relationship of ecology to conflict through different pathways. Policies will vary depending on how the ecological variable is linked to conflict. Identifying and assessing linkages is critical to targetting effective policy interventions that have lasting impact.

Endnotes

1 K Holsti, Ecological and Clausewitzian approaches to the study of war: Assessing the possibilities, Paper presented at the 30th Anniversary Convention of the *International Studies Association*, London, 1989.

2 Forum on Early Warning and Early Response (FEWER), *Conflict Analysis and Response Definition* (Abridged) Methodology, London, April 2001, p 7. < www.fewer.org/research/index.htm >

3 T R Cusak, On the theoretical deficit in the study of war, *The process of war. Advancing the scientific study of war*, S A Bremer & T R Cusak (eds), Gordon and Breach Publishers, Amsterdam, 1995, p 191.

4 In this regard see, *inter alia*, J Vasquez's assessment of quantitative international relations research in Statistical findings in international politics: A data-based assessment, *International Studies Quarterly*, vol 20, no 2, 1976, pp 171–218 as well as The steps to war: Toward a scientific explanation of correlates of war findings, *World Politics*, no 40, 1987, pp 108–145. Also K Holsti, op cit, as well as Mirror, mirror on the wall, which are the fairest theories of all?, *International Studies Quarterly*, vol 33, no 3, 1989, pp 255–61 and *Peace and war: Armed conflicts and international order 1648–1989*, Cambridge University Press, Cambridge, 1991.

5 H Morgenthau, *Scientific man vs power politics*, University of Chicago Press, Chicago, p 95 cited in D J. D. Sandole, *Capturing the complexity of conflict. Dealing with violent ethnic conflicts of the post-cold war era.* Pinter, London & New York, 1999, p 7.

6 To paraphrase the title of a fascinating volume dedicated to the topic, Big Wars, Little Wars – A Single Theory?, *International Interactions*, R M Siverson (ed) & M I Midlarski (guest ed), vol 16, no 3, 1990.

7 J Levy, Big wars, little wars, and theory construction, ibid, p 219. Yet, as A Thompson points out, "Many of these analyses offer something missing from the earlier passing fancies of international relations. Not only are they theoretically grounded, they are also historically grounded. Indeed, they represent reinterpretations of the past several hundred years of structural change and the ensuing disputes among the system's major actors." W R Thompson, The size of war, structural and geopolitical contexts, and theory building/testing, R M. Siverson (ed) et al, op cit, p 186.

8 In this respect see *inter alia* the excellent collection of essays on interstate war in S A Bremer et al, op cit. A good example regarding the causes of interstate war can be found in J A Vasquez, *The war puzzle*, Cambridge Studies in International Relations, Cambridge University Press, Cambridge, 1993.

9 T R Gurr & M G Marshall with D Khosla, *Peace and conflict 2001: A global survey of armed conflicts, self-determination movements, and democracy*, Center for International Development and Conflict Management (CIDCM), University of Maryland, 2000. < www.bsos.umd.edu/cidcm/peace.htm >

10 These trends and comparisons were constructed from a catalogue of every major episode of violent conflict from 1946 to 2000. Magnitudes were determined by rating each conflict on a 10 point scale that takes into account its deaths, dislocations, and physical damage. Ibid, p 8. < www.bsos.umd.edu/cidcm/peace.htm >

11 J D Singer, Armed conflict in the former colonial regions: From classification to explanation, *Between development and destruction. An enquiry into the causes of conflict in post-colonial states.* L Van de Goor with K Rupesinghe & P Sciarone (eds), The MacMillan Press Ltd, London & New York, 1996, p 35.

12 Center for Systemic Peace. op cit, pp 3–4. Singer corroborates this assertion by saying that these tendencies have "been with us for nearly half a century" and that they went unnoticed because "most of us living in the 'First' and 'Second' worlds were too preoccupied with the senselessness of our own confrontation to notice the death and destruction going on elsewhere". Singer, op cit, p 35.

13 The former Yugoslavia erupted in a vicious civil war, still reverberating in Kosovo and Macedonia; conflict erupted between Moscow and the former Soviet republics of Azerbaijan and Tajikistan; and between Armenia and Azerbaijan over Nagorno-Karabah; and within the Russian republic over Chechnya.

14 K Rupesinghe with S Ni Anderlini, *Civil wars, civil peace. An introduction to conflict resolution.* Pluto Press, London 1998, p 8.

15 A J Longman, *Downward trend in armed conflicts reversed,* p 4. <www.fsw.leidenuniv.nl/www/w3_liswo/Newsletter81/in_its_search_for_root_causes_of.htm>. See also P Wallensteen and M.Sollenberg, Armed conflict, 1989–1998, *Journal of Peace Research,* vol 36, no 5, 1999, pp 593–606.

16 H Miall with O Ramsbotham & T Woodhouse, *Contemporary conflict resolution,* Polity Press, Cambridge & Oxford, 1999, p 66.

17 In this regard see Van Creveld, *The transformation of war,* Free Press, 1991; K J Holsti. *The state, war, and the state of war.* Cambridge Studies in International Relations, Cambridge University Press, 1996 and M Kaldor. *New & old wars. Organized violence in a global era.* Polity Press, Cambridge & Oxford, 1999. The concept of 'Wars of the Third Kind' was originally developed by Edward Rice in his *Wars of the third kind: Conflict in underdeveloped countries,* University of California Press, Berkeley, 1988.

18 M Van Creveld, op cit, p 20. Furthermore, contemporary wars are tactically fought with a mixture of guerilla warfare, terrorism and counter-insurgency. They are not fought for the capture or control of territory as in conventional or regular war, in that "the aim is to control the population by getting rid of everyone of a different identity (and indeed of a different opinion)" through the use of means such as mass killings, forcible resettlement, as well as political, psychological and economic techniques of intimidation. M Kaldor, op cit, p 8.

19 As was previously pointed out, the small units characteristic of contemporary armed conflict deliberately target civilians, use terror and intimidation to harness popular support, and attrition and/or hit-and-run attacks. The perceived structural change in warfare has led many authors to attempt to predict how warfare will be characterised in the future. For instance, Kumar Rupesinghe et al proposed five broad trends for the future of warfare, namely, the privatisation of state armies, the growth of militias and local warlords, the deliberate targetting of civilians and children, narco-guerillas and criminality and finally the re-emergence of mercenary soldiers. Rupesinghe et al, op cit, p 51.

20 As pointed out by Le Billon, "With the end of the Cold War and the resulting sharp drop in foreign assistance to many governments and rebel groups, belligerents have

become more dependent upon mobilising tradable commodities, such as minerals, timber or drugs, to sustain their military and political activities. As local resources gain importance for belligerents, so the focus of military activities becomes centred on areas of economic significance. This has a critical effect on the location of conflicts, prompting rebel groups in particular to establish permanent strongholds wherever resources and transport routes are located ... war economies, including commercial activities tend to shift from an economy of proximity, to an economy of networks [which] involve mostly private groups (including international organised crime groups, transnational corporations, and diasporas) ... beyond financing a conflict, the exploitation and commercialisation of natural resources can also help armed groups to develop an extensive and diversified support network, which integrates all people having an economic stake in the exploitation of resources." P le Billon, The political economy of resource wars, *Angola's war economy. The role of oil and diamonds*, J Cilliers & C Dietrich (eds), Institute for Security Studies, South Africa, 2000, p 30.

21 Defining identity politics as claims to power on the basis of particular identities, national, clan, religious or linguistic, Kaldor considers that 'identity politics' differs because although all wars have involved in one way or another a clash of identities. "Earlier identities were either linked to a notion of state interest or to some forward looking project ideas about how society should be organised." Kaldor, op cit, p 6.

22 T R Gurr, Minorities, nationalists and ethnopolitical conflict, *Managing global chaos: Sources of and responses to international conflict*, C A Crocker & F O Hampson with P Hall (eds), U.S. Institute of Peace, Washington DC, 1996. Three years earlier, in 1993, Ted Gurr had identified 5 000 distinct ethnic groups and uncovered around 80 significant and ongoing ethnic conflicts, 35 of which are in an incipient or active stage of civil war. T R Gurr, *Minorities at risk: A global view of ethnopolitical conflicts*. United States Institute of Peace Press, Washington, D.C., 1993.

23 In fact, in many countries the weakening of state structures has involved among others: economic and social decline; decline in state revenues; the spread of criminality, corruption and inefficiency; growing of organised crime and the privatisation of security as well as the emergence of para-military groups. Ibid. p 4. See the excellent study by R Jackson, *Quasi-states: Sovereignty, international relations, and the third world*. Cambridge University Press, Cambridge & London, 1990.

24 Holsti, op cit, pp 16–18.

25 Ibid, pp xi–x. Centring on the aetiology as well as the internal character of contemporary warfare, Christopher Clapham for example developed a typology of insurgency to reflect the evolution of these mostly internal conflict types over time and in different circumstances. He referred to *liberation insurgencies* (the goal is the achievement of independence from colonial or minority rule); *separatist insurgencies* (representing the aspirations and identities of particular ethnic groups or regions within an existing state, either by seceding or pressing for an autonomous status); *reform insurgencies* (seeking radical reform of the national government) and finally *warlord insurgencies* (directed toward a change in leadership and control of

the resources available to the state and not so much to a change in policy, ideology or patterns of patronage). C Clapham. Introduction: Analysing African insurgencies, *African guerrillas*, C Clapham (ed), James Currey, Oxford, 1998, pp 6–7.

26 It should be pointed out that the need for explanation is not merely academic. As Shehadi points out, "government officials and international civil servants worldwide are seeking to respond to the challenges posed by these claims, while international organisations are trying to mediate an end to these conflicts and alleviate the humanitarian disasters they create". K S Shehadi, *Ethnic self-determination and the break-up of states*, International Institute for Strategic Studies, Adelphi Paper 283, London, 1993, p 3.

27 Singer, Armed conflict in the former colonial regions: From classification to explanation, op cit, p 38.

28 D Jung with K Schlite & J Siegelberg, Ongoing wars and their explanation, Luc Van de Goor et al, op cit, p 61. To this respect, Dietrich Jung et al point out that "since the end of the Cold War, the slogan 'ethnic conflict' does not only appear more and more often in the media, but also in the discourse of social science". Ibid, pp 60–61.

29 See *inter alia*, P van den Berghe, *The ethnic phenomenon*, Elsevier, New York, 1981.

30 D Lake & D Rothchild, Ethnic fears and global engagement: The international spread and management of global conflict, op cit. The instrumentalist approach is used by, *inter alia*, N Glazer & D P Moynihan, *Ethnicity: Theory and experience*, Harvard University Press, Cambridge, 1975; D Rothchild, Interethnic conflict and policy analysis in Africa, in *Ethnic and Racial Studies*, vol 9, no 1, January 1986 and P Brass (ed), *Ethnic groups and the state*, Croom-Helm, London, 1985.

31 T D Sisk. *Power sharing and international mediation in ethnic conflicts*, Carnegie Commission on Preventing Deadly Conflict, United States Institute of Peace, Washington DC, 1996, p 12.

32 Ibid,. p 13.

33 Ibid.

34 Lake & Rothchild, op cit. For a discussion of the relational approach see, among others, M Esman, *Ethnic politics*, Cornell University Press, Ithaca, 1994.

35 Sisk, op cit. p 13.

36 Gurr, Minorities, nationalists and ethnopolitical conflict', op cit, p 63. In this regard Peter Worsley considers that "cultural traits are not absolutes or simply intellectual categories, but are invoked to provide identities which legitimise claims to rights. They are strategies or weapons in competitions over scarce social goods". As cited in T H Eriksen, *Ethnicity and nationalism: Anthropological perspectives*. Pluto Press, London, 1993. This is also the position of the instrumentalists, as defined by Timothy Sisk: "Instrumentalists often view ethnic conflict as less a matter of incompatible identities and more a consequence of (a) differential rates and patterns of modernisation between groups and (b) competition over economic and environmental resources in situations where relations among groups vary according to wealth and social status. In other words, ethnicity is often a guise for the pursuit of essentially economic interests'. Sisk, op cit, p 12.

This conclusion had been reached by Robert Park and his associates during the 1920s and 30s. These authors stressed that ethnicity and ethnic conflict were caused by threats, real or imaginary, to an existing ecological pattern of mutual adjustment highlighting the fluid character of ethnic categorisations and their negotiable imprint, a result of the variance in their situational importance. Such approaches opened the way for a critical analysis of primordial approaches to ethnicity and the realisation that these can be consciously manipulated.

37 J Cilliers, Resource wars – a new type of insurgency, Cilliers et al (eds), op cit, p 2.

38 Rupesinghe et al, op cit, pp 32–33.

39 For an in-depth discussion of the correlation mentioned please refer to Gurr & Marshall with Khosla, op cit, p 12.

40 For a collection of Paul Collier's articles, as well as access to the World Bank's Policy Research Project entitled The causes of civil war, crime and violence refer to < www.worldbank.org/research/conflict/civil.htm > . See the very interesting collection of essays in M Berdal and D Malone (eds), *Greed and grievance: Economic agendas in civil wars*, Lynne Rienner, Boulder CO, 2000 in particular I de Soysa's article, The resource curse: Are civil wars driven by rapacity or paucity? See also M Berdal and D Keen, Violence and economic agendas in civil wars: Some policy implications, *Millenium: Journal of International Studies*, vol 26, no 3, pp 795–818. Another interesting perspective on 'resource wars' can be found in J Fairhead, The conflict over natural and environmental resources, *The origins of humanitarian emergencies: War and displacement in developing countries*, E W Wayne, F Stewart and R Vayrynen (eds), Oxford University Press, Oxford, 2000. Also D Keen, Economic functions of violence in civil wars, *International Institute for Strategic Studies Adelphi Paper no 320*, Oxford University Press, 1998. Also see the already quoted D Jung with K Schlite & J Siegelberg, Ongoing wars the their expalantion, L Van de Goor et al (eds), op cit, pp 50–63.

41 P Collier, *Doing well out of war*, Paper prepared for Conference on Economic Agendas in Civil Wars, London 26–27 April 1999. The World Bank, The Economics of Crime and Violence Project, Washington DC, 10 April, 1999, p 1. < www.worldbank.org/research/conflict/papers/econagenda.htm >

42 Not dissimilar to Bruce Bueno de Mesquita's expected-utility theory. Methodologically, as was previously pointed out, the authors use statistical and probabilistic analysis (mainly probit and tobit regressions) and claim that the results obtained through these methods support and confirm the assertion that economic agendas are central to the origins and continuance of many civil wars. P Collier & A Hoeffler, *On economic causes of civil war*, The World Bank, The Economics of Crime and Violence Project, Washington DC, January 1998. < www.worldbank.org/research/conflict/papers/cw-cause.htm > . Also published in *Oxford Economic Papers*, 50, 1998, pp 563–73..

43 In this sense, "the higher is per capita income on an internationally comparable measure, the lower is the risk of civil war". The authors interpret this "as being due to the effect of higher income on the opportunity cost of rebellion". Ibid, pp 7 & 9.

44 Ibid.

45 Ibid.
46 The authors measure ethnic diversity through the index of ethno-linguistic fractionalisation which measures the probability of two randomly drawn people being from different ethnic groups developed originally in the *Atlas Naradov Mira*, Department of Geodesy and Cartography of the State Geological Committee of the USSR, Moscow, 1964.
47 Collier & Hoeffler, op cit, pp 7–8.
48 Ibid, pp 8–9.
49 Collier, op cit, p 14.
50 Nevertheless, the author points out that inequality is obviously related to economic growth and therefore an indicator to bear in mind. Ibid, p 5.
51 Ibid, pp 6 & 11.
52 Ibid, pp 1–2.
53 For example, "a country which is heavily dependent upon primary commodity exports, with a quarter of its national income coming from them, has a risk of conflict four times greater than one without primary commodity exports". Ibid, p 5.
54 Ibid.
55 Ibid.
56 Ibid, pp 6 & 11.
57 Ibid, p 6.
58 The earlier expression of expected-utility analysis stems from Von Neumman and Morgenstern in their *Theory of Games and Economic Behaviour*, Princeton University Press, 1944. As pointed out by M Nicholson in The conceptual bases of the war trap, *Journal of Conflict Resolution*, vol 13, no 2, June 1987, p 357, "These authors demonstrated a set of postulates about behaviour which if followed would mean that actors behave in circumstances of risk as if they were maximising the expected value of some defined concept of utility". Expected-utility theory as regards the occurrence of war was developed by B de Mesquita in his *The war trap*, Yale University Press, New Haven, 1981.
59 See *inter alia*, M Nicholson, *Rationality and the analysis of international conflict*. Cambridge Studies in International Relations, Cambridge University Press, 1992; S J Majeski with D J Sylvan, Simple choices and complex calculations: A critique of the war trap', *Journal of Conflict Resolution*, vol 28, no 2, June 1984, pp 316–340.
60 T Schelling, *The strategy of conflict*, Harvard University Press, Cambridge Mass, 1960. See also V Jabri. *Discourses on violence*, Manchester University Press, 1996, pp 62–65.
61 V Jabri, op cit, p 14. In fact, as Charles King points out, "in prolonged armed conflicts, belligerents analyse costs and benefits according to two rather different sets of criteria. The potential benefits of continuing to fight tend to be analysed prospectively, while the potential costs are normally viewed retrospectively". C King. *Ending civil wars*, International Institute for Strategic Studies, Adelphi Paper 308, London, 1997, p 43.
62 For a discussion of this approach see V Jabri, op cit, pp 57–58 as well as O Holsti, Crisis Management, *Psychological dimensions of conflict*, B Glad (ed), Sage, London, 1990.

63 Nicholson, op cit, particularly Chapters 3 to 7.

64 Ibid, pp 104–105. Jabri also questions the rationality assumption in her application of structuration theory to the phenomena of violent conflict. She specifically assumes that "our understanding of violent human behaviour cannot simply be based on instrumental rationality but must situate the agent, or acting subject, in relation to the structural properties which render war a continuity in social systems". Jabri., op cit, p 3.

65 C Tilly, *From mobilisation to revolution*, Reading Mass, Addison-Wesley, 1978. As Collier et al, albeit 20 years earlier, Tilly also conceptualised violent political action as a matter of tactical and strategic choice, dependent on cost-efficiency calculations by groups intended on pursuing violent tactics in the achievement of their goals.

66 Nicholson, op cit, p 227.

67 Ibid, p 228.

68 J Davies, Toward a theory of revolution, *American Sociological Review*, 27, 1962, pp 5–19. See also J C Davies, Aggression, violence, revolution and war, *Handbook of political psychology: Contemporary problems and issues*, J N Knutson (ed), Jossey-Bass, San Francisco, 1973.

69 T Gurr, *Why men rebel*, Princeton, N.J., Princeton University Press, 1970. See also A.R Oberschall, Rising expectations and political turmoil, *Journal of Development Studies*, 1969, pp 5–23. For a case study application, D Birrel, Relative deprivation as a factor in conflict in Northern Ireland, *Sociological Review*, 1972, pp 317–343.

70 Relative deprivation implies that people become dissatisfied if they feel they have less then they should and could have. There are many different ways this can happen: members of a society or organisation have decreasing amounts of what they previously possessed; improving conditions which then deteriorate; rising expectations, where people raise their expectations about what they could and should have. Furthermore it should also be pointed out that relative deprivation theories do not only refer to economic deprivation. Crucially, several political scientists writing of relative deprivation locate it at the political level. Among them Vilfredo Pareto places deprivation at the political level: a sort of political relative deprivation based on the insufficient co-optation of competing members of the non-elite, ultimately causing the decline of status quo elites. Gaetano Mosca and Emile Durkheim also tackled the problem of relative deprivation situated at the political level. Samuel Huntington, for example, locates violent political action and revolution at the level of the political sphere: within a context of rapid socio-economic modernisation, people are mobilised and induced to enter the political arena, and if their demands are not properly channelled, aggressive modes of behaviour may be taken.

71 Gurr, *Why men rebel*, op cit, p 24. Gurr states that "the greater the deprivation an individual perceives relative to his expectations the greater his discontent; the more widespread and intense is discontent among the members of a society, the more likely and severe is civil strife".

72 According to Dennis J D Sandole, James Davies modifies the 'hierarchy of needs' developed by Abraham Maslow considering that it is the frustration of substantive (physical, social-affectional, self-esteem and self-actualisation) or implemental

needs (security, knowledge, and power) that can facilitate the transition from manifest conflict processes to aggressive manifest conflict processes. D J D Sandole, Paradigms, theories, and metaphors in conflict and conflict resolution: coherence or confusion?, *Conflict resolution theory and practice. integration and application*, D J D Sandole and H van der Merwe (eds), Manchester University Press, 1993, p 14.

73 In this sense Gurr was aware that "deprivation exists in the remote background, waiting to be converted". Political mobilisation will ensure that individual aggression is channelled as collective violence, through normative and utilitarian justifications for the adoption of such course of action. Harry Eckstein posits in this respect as well as in regard to the rational-actor discussion that "the implication is that the role of tactical variables diminishes as the more fundamental factor of frustration grows: desperate, impassioned people will not act coolly or be much governed by tactical calculations, even about coercive balances. This is the only logical way to combine rationalistic with essentially arational motivation. Arationality also implies that a major role be assigned to cultural-variable learning. This too occurs in Gurr's theory, the cultural variable being the extent to which a culture of violence rooted in the past exists". H Eckstein, 'Theoretical approaches to explaining collective political violence, *Handbook of political conflict, theory and research*, T R Gurr (ed), New York, Free Press, 1980, pp 144–5.

74 Absolute deprivation approach considers the effects of the absolute magnitude of deprivation on the occurrence of conflict. The work of Dahrendorf, for example, emphasises that absolute deprivation in several dimensions of groups' existence leads to homogeneity and facilitates group interaction and the likelihood that deprived communities view themselves as a collective entity. Yet, as pointed out by several authors, absolute deprivation is not automatically related to the occurrence of violent conflict. Among these authors, Cantril highlighted that absolute deprivation forces people to concentrate on their daily survival rather than revolt. As Kriesberg points out, "severe deprivation may make people despair of changing the conditions, and, as accommodation to such despair, even the self-recognition of collective discontent may not occur". L Kriesberg, *Social conflicts*. 2nd Edition, Prentice-Hall Inc, 1973, 1982.

75 See for example Cantril's (1965) experiments with a ten-step ladder scale to measure discrepancy between expectations and actual achievements. Also Bowen's (1968) test of Cantril's ladder and his conclusion that there is no relationship between present or future standing on the ladder and a measure of protest orientation. Also Muller's and McPhail's experiences as well as Walter Korpi's. Korpi for example stresses the importance of the capability or relative power of the parties involved in that "the process of acquiring control over power resources is seen as a necessary condition for the capacity to contend for privileges". In this sense, the relative deprivation hypothesis is not capable by itself of explaining violent conflict behaviour. In fact, important variables such as prevalent policies in the social system, legitimacy of the elites, power capabilities of the parties involved, alienation, external interference and support for one of the contending parties, historical factors and trends must be considered. W Korpi, Conflict, power, and relative deprivation, American Political Science Review, 1974, pp 1569–1578.

76 P le Billon, The political economy of resource wars, Cillier et al (eds), op cit, p 23. So-called scarcity-of-resources approaches consider poverty as a fundamental cause of contemporary conflict. Global and local economic inequality is at a high point when for example one knows that the world's 50 poorest nations (20% of the world's entire population) account for less than 2% of global income and there is stagnation and protracted decline in income due to years of stagnant economic growth. Furthermore, soil impoverishment, land scarcity and overuse, overpopulation and deforestation also contribute as potential causes of conflict.

77 M T Klare, The new geography of conflict, *Foreign Affairs*, May/ June 2001, p 52. This author adds that "Just as a map showing the world's tectonic faults is a useful guide to likely earth-quake zones, viewing the international system in terms of unsettled resource deposits – contested oil and gas fields, shared water systems, embattled diamond mines – provides a guide to likely conflict zones in the twenty-first century ... A better analysis of stresses in the new international system, and a better predictor of conflict, would view international relations through the lens of the world's contested resources and focus on those areas where conflict is likely to erupt over access to or the possession of vital materials" (pp 52–53).

78 Cilliers, op cit, p 2.

79 In this regard, the words of Chris Mitchell come to mind: "if certain conflicts within a society are regarded as stemming from ineradicable human qualities such as greed or envy then they are defined as sins, crimes or social deviance, and are 'managed' by coercion or punishment and the imposition of law-and-order policies through deterrent police forces". C R Mitchell, *The structure of international conflict*, The MacMillan Press Ltd, 1981, p 33.

80 Jabri, op cit, p 65.

81 Collier & Hoeffler, *Greed and grievance in civil war*, op cit, <www.worldbank.org/research/conflict/papers/greedandgrievance.htm>

82 On this occasion the authors actually say that "the assumption that rebellions are motivated by greed is merely a special case of the focus upon constraints" in that "an alternative constraints-based theory is that of universal grievance: all countries might have groups with a sufficiently strong sense of grievance to wish to launch a rebellion". Collier & Hoeffler, op cit, p 3.

83 There are important differences in both a constraints-based theory and a preferences-based theory of conflict. For example, if we take the universal grievance approach (defined here as a constraint) one will inevitably conclude that the extortion of primary commodity exports offers the best way for rebel organisations to grow to achieve the size and scale they need to undertake a civil war. Extortion than becomes a vehicle, a means to an end. On the other hand, if we take the 'literal greed interpretation', "the extortion of primary commodity exports will occur where it is profitable" and "the organisations which perpetrate this extortion will need to take the form of a rebellion". Ibid.

84 Ibid.

85 Please note that the authors are still using Singer and Small's 1982 definition of civil war referred to above. In this respect see J D Singer and M Small, *Resort to arms: International and civil wars: 1816–1980*, Sage, Beverly Hills, 1982. And also J D Singer and M Small, *Correlates of war project: International and civil war*

data, 1816–1992 (Computer file), Ann Arbor, Michigan, Inter-University Consortium for Political and Social Research, 1994.

86 The dependence on extortion of primary commodity exports by rebel groups also affects their size in the sense that because "primary commodities need defence of a large physical space best suited to an army", "a viable extortion racket itself needs considerable military power". However, the authors point out that "the threshold of rebel force required for survival is increasing in the government's military expenditure. As a result, the viability of rebellion need not be continuously increasing in the endowment of primary commodity exports. Beyond some point, the increment in potential rebel revenue may be more than offset by the increased rebel expenditure needed to survive against augmented government forces". Ibid, p 4. The descriptive statistical investigation that preceded regression analysis confirmed previous results on the role of primary commodity exports in the occurrence of civil war as well as regarding the structure of income. Applying regression methods to these variables in order to test their validity as regards a 'greed-model' they found a similar non-linear result as to the effect of primary commodity exports.

87 As Collier and Hoefller posit, "the government army has two advantages over a rebellion. It can spend many years building a sense of unity, whereas if a rebel force fails to achieve unity quickly it will presumably perish. Additionally, the government can use the powerful rhetoric of nationalism: with this imagined identity already occupied, a rebellion cannot afford diversity". Collier & Hoeffler, op cit, p 7.

88 In line with J M.Esteban and D Ray, On the measurement of polarisation, *Econometrica*, vol 62, no 4, pp 819–851 and M Reynal-Querol, *Religious conflict and growth: Theory and evidence*, London School of Economics and Political Science, mimeo, 2000. A non-monotonic result was found leading to the conclusion that "highly fractionalised societies are no more prone to war than highly homogeneous ones" while polarised societies have around a 50% higher probability of civil war than either homogeneous or highly fractionalised societies. P Collier & A Hoeffler, *On economic causes of civil war*, pp 7–8.

89 Ibid, p 9.

90 Based on M B Anderson, *Do no harm*, Lynne Reinner Publishers, 1999. Collier & Hoeffler. *Greed and grievance in civil war*, op cit, p 10.

91 Ibid.

92 Ibid, p 15.

93 Le Billon, op cit, p 28.

94 Ibid, p 30.

95 For an in-depth discussion of the development of the level-of-analysis problem in international relations refer to *inter alia*, B Buzan, The level of analysis problem in international relations reconsidered, *International relations theory today*, K Booth & S Smith (eds), Polity Press, Cambridge, 1995. Also J D Singer, The level of analysis problem in international relations, *The international system. Theoretical essays*. K Knorr & S Verba (eds), Princeton University Press, 1961. Reprinted by Greewood Press Publishers, 1982; W B Moul, The level of analysis problem revisited, *Canadian Journal of Political Science*, vol 61, no 1, 1973, pp 494–513. For an application of this framework in the discussion of the leading

theories of international conflict refer to among others, J S Levy. Contending theories of international conflict: a level-of-analysis approach, *Managing global chaos: Sources of and reponses to international conflict*, op cit; and also D J D Sandole, Paradigms, theories, and metaphors in conflict and conflict resolution: coherence or confusion?, Sandole & van der Merwe (eds), op cit.

96 K Waltz, *Man, the state and war: a theoretical analysis*. Columbia University Press, New York & London, 1959. After the publication of *Man, the state and war*, the shift from 'images of international relations' to 'levels of analysis' was essentially a result of two authors: J D Singer, International conflict. three levels of analysis, *World Politics* Review Article, vol 12, Issue 3, April 1960, pp 453–461 where Singer replaces the term 'images' with 'levels'. In the first page of this review article this authors conflates both terms by saying that "the treatise under review is a commendable exception to our tendency to 'bootleg' assumptions, consciously or otherwise, into our research and teaching; as such, it is a welcome and valuable addition to the literature of what many of us view as a nascent discipline. But Prof. Waltz's book is more than that; it is, in effect an examination of these assumptions, which find their way inevitably into every piece of description, analysis, or prescription in international political relations. These assumptions lead into, and flow from, the level of social organisation, which the observer selects as his point of entry into any study of the subject. For Waltz, there are three such levels of analysis: the individual, the state and the state system". Op cit, p 453.

97 In Waltz's own words, "Where are the major causes of war to be found? The answers are bewildering in their variety and in their contradictory qualities. To make this variety manageable, the answers can be ordered under the following three headings: within man, within the structure of the separate states, within the state system." Ibid, p 12.

98 Waltz, op cit, p 14.

99 Ibid, pp 160 & 225. A focus on one single image does in fact affect the way the other images are perceived. In this respect the author points out that "the firmness with which a person is wedded to one image colors his interpretation of the others" (p 226). He gives the example of Woodrow Wilson's "emphasis upon the second image [that] led him to particular interpretations of the first and third, rather than to a complete ignoring of them" (p 227). In effect, "in each image a cause is identified in terms of which all others are to be understood" (p 228). Manus Midlarsky provides us with insights into this problem: "Whether consciously or unconsciously, investigators generally focus on one level or another as a necessary demarcation of research boundaries. I will take no position on the utility of one or another of these levels of analysis because, as we shall see, all have a major contribution to make, but in different ways." M I Midlarsky, Introduction, *Handbook of war studies*, pp xiii–xiv, M I Midlarsky (ed), The University of Michigan Press, 1993, originally published by Unwin Hyman, 1989.

100 B Buzan, The level of analysis problem in international relations reconsidered, *International relations theory today*, K Booth and S Smith (eds), Polity Press, Cambridge, 1995, p 198.

101 Ibid, p 230. He also says that "with the first image the direction of change ... is from men to societies and states. The second image catches up both elements.

Men make states, and states make men; but this is still a limited view. One is led to a search for the more inclusive nexus of causes, for states are shaped by the international environment as are men by both the national and international environments". This concern with including the insights of all three images in an adequate understanding of the causes of war is repeatedly voiced throughout *Man, the state and war*. For example, in the opening of Chapter IV on the second image (internal structure of states) he says that "the conclusion is obvious: to understand war and peace political analysis must be used to *supplement* [my emphasis] and order the findings of psychology and sociology [first image]' (p 186). Waltz also says that "the first perspective without the second is misleading" and that "it has by now become apparent that there is a considerable interdependence among the three images'" K Waltz, op cit, p 186.

102 D J D Sandole, *Capturing the complexity of conflict. Dealing with violent ethnic conflicts of the post-Cold War era.* Pinter, London & New York, 1999.

103 Ibid, p 18. This framework also includes Snyder et al's (1962, pp 62–74): (a) decision-making process, (b) internal setting of decision-making/social structure and behaviour of the decision-making state, and (c) external setting of decision making.

104 Sandole, op cit, p 178.

105 In Sandole's words: "The stepwise procedure was then used to develop models for each of the dependent variables for each of the three developmental stages ... in addition to exploring possible differences between the aggregated and disaggregated models, one objective here was to test Waltz at different levels of development: when systems were relatively youthful, when they were into their 'middle years', and when they were mature ...' Ibid, p 74–75.

106 Ibid, p 129. Furthermore, the author says that "what is important to realise here is that, although parties to conflict may wind up killing each other, they may have come to that point from different 'startup conditions' (equifinality)". Ibid, p 112.

107 M S Lund, *Preventing violent conflicts: A strategy for preventive diplomacy*, U S Institute of Peace Press, Washington DC, 1996, p 133–34 as cited in D J D Sandole, *Capturing the complexity of conflict. Dealing with violent ethnic conflicts of the post-Cold War era.* op cit, p 130.

108 Mitchell, op cit, p 52.

109 Jabri, op cit, p 6.

110 In this regard we discussed how psychological variables operating at the individual decision-making level contribute to the development of self-stimulating/self-perpetuating conflict processes in their own right, becoming an important source for the continuation and protractedness of any given conflict.

111 See for example, M E Brown, Introduction, *The international dimensions of internal conflict.* CSIA Studies in International Security, The MIT Press, Cambridge Massachusetts & London, 1996, p 1–33. As well as his The causes and regional dimensions of internal conflict, *The international dimensions of internal conflict,* CSIA Studies in International Security, The MIT Press, Cambridge Massachusetts & London, 1996, pp 571–603.

112 J Goodhand, with T Vaux & R Walker, Guide to conflict assessment, United Nations Development Programme, Department for International Development, Third Draft, Unpublished, September 2001, p 11. For these authors, structural analysis entails looking at the long-term factors underlying violent conflict.

113 See King, op cit, p 29.

114 Forum on Early Warning and Early Response (FEWER), op cit, p 3. <www.fewer.org/research/index.htm>. See also The Norman Paterson School of International Affairs *Country indicators for foreign policy risk assessment indicator definition*, November 2001, p 4. <www.fewer.org/research/index.htm>

115 Among others, see for example the work developed by the Forum on Early Warning and Early Response (FEWER), FAST (Swiss Peace Foundation), the Clingendael Institute or the Centre for International Development and Conflict Management (CIDCM) at the University of Maryland. For a useful comparison of the methodologies used by these projects refer to The Norman Paterson School of International Affairs, *Country indicators for foreign policy methodology, data descriptions, data sources*. November 2001. <www.fewer.org/research/index.htm>

116 See S Ampleford with D Carment, G Conway & A Ospina. *Country indicators for foreign policy: Risk assessment template*. Draft version, The Norman Paterson School of International Affairs, FEWER, August 2001, p 4. <www.fewer.org/research/index.htm>

117 Supra 523.

118 In this respect Ronald Fisher posits that "it follows that the central unit of analysis in protracted social conflict is the *identity group* [sic], defined in ethnic, racial, religious, linguistic, or other terms, for it is through the identity group that compelling human needs are expressed in social and often in political terms. Furthermore, communal identity itself is dependent upon the satisfaction of basic needs for security, recognition, and distributive justice". R Fisher, *Interactive conflict resolution*, Syracuse University Press, Syracuse New York, 1997, p 5.

119 E E Azar, Protracted international conflicts: Ten propositions, *Conflict: Readings in management and resolution*, J Burton & F Dukes (eds), MacMillan Press Ltd, 1990, pp 147–148 from E E. Azar, Protracted international conflicts: Ten propositions, *International conflict resolution: Theory and practice*, E Azar & J Burton (eds), Lynne Rienner Publishers, England, Boulder, CO, 1986.

120 Ibid, p 146

121 In this respect see *inter alia* J W Burton, *Resolving deep-rooted conflict, a handbook*. University Press of America, Boston, 1987. At the root of John Burton's 'facilitative problem-solving' approach to resolving conflicts is human needs theory. In his words, "The theory of human needs, which was built on the work of Maslow and others, stressed values that could not be curbed, socialised or negotiated, contrary to earlier assumptions ... as these needs of security, identity and human development are universal, and because their fulfillment is not dependent on limited resources, it follows that conflict resolution with win-win outcomes is possible." Op cit, p 16.

122 Kriesberg, op cit, p 68. This author adds that "we are primarily concerned with understanding how conflict groups become conscious of themselves as groups, come to perceive that they have grievances, and formulate goals that would lessen their dissatisfaction at the apparent expense of another party".

123 Mitchell, op cit, p 33.

124 An up-dated version of this book is entitled L Kriesberg, *Constructive conflicts. From escalation to resolution*, Rowman & Littlefield Publishers, New York, 1998.

125 *Ibid, p 21. This author considers that social* conflicts are ubiquitous and manifest themselves at every level of the social spectrum, from interpersonal disputes to community conflicts, from industrial struggles to international war. Nevertheless, not every social relationship is characterised by conflict at all times. More importantly, not every conflict is expressed in a violent or hostile way. Moreover, looking at conflict as relationship makes possible the assumption that different conflicts have common elements. The fact that every violent conflict is in a sense unique should not undermine the search for among other things, dynamic and behavioural similarities in conflict processes and in the several dimensions along which conflicts vary. As was previously pointed out, one of the most important contributions of conflict research has been that it searches for the similarities and differences among many different kinds of conflicts such as class conflicts, community conflicts, industrial conflicts, and international conflicts. An analysis which adequately balances the particularities of a specific conflict with its general characteristics and dynamics as a process seems a fruitful way forward.

126 To this respect, see *inter alia*, Vasquez, op cit, Chapter 5.

127 J S Levy, Contending theories of international conflict: a level-of-analysis approach, Crocker et al (eds), op cit, p 5. For an in-depth discussion of this issue refer to R Jervis, *Perception and misperception in international politics*, Princeton University Press, Princeton, N.J., 1976. Also M Nicholson, *Rationality and the analysis of international conflict*, op cit. Commenting on Edward Azar's work, Miall et al say in this respect that "anatagonistic group histories, exclusionist myths, demonising propaganda and dehumanising ideologies serve to justify discriminatory policies and legitimise atrocities. In these circumstances, in a dynamic familiar to students of international relations as the 'security dilemma', actions are mutually interpreted in the most threatening light, the 'worst motivations tend to be attributed to the other side', the space for compromise and accommodation shrinks and 'proposals for political solutions become rare, and tend to be perceived on all sides as mechanisms for gaining power and control".. Miall et al, op cit, p 75.

128 Mitchell, op cit, p 101.

129 As Kriesberg points out, "continuously organised conflict groups enjoy a mobilisation advantage over emergent conflict parties, as is the case between governments and protesters or revolutionaries". Kriesberg, op cit, p 92. This had been pointed out by Collier et al in Chapter 3.

130 Brown, The causes and regional dimensions of internal conflict, op cit, p 575.

131 Brown, Introduction, op cit, p 18.

132 P Chabal & J-P Daloz, *Africa works. Disorder as a political instrument*, The International African Institute, James Currey, Oxford, 1999, pp xiii, xix. In this respect see also J-F Bayart, *The state in Africa. The politics of the belly*, Longman, London & New York, 1993.

133 Mitchell, op cit, p 44. Furthermore, Mitchell adds that "the existence of opposing definitions of 'what the conflict is about' implies that one way of gaining one's own goal in such conflict is to influence the other party so that the latter accepts one's own way of regarding what issues are in conflict. Hence, a common tactic for gaining an advantage in a dispute is to have one's own way of regarding what issues are in conflict". Ibid, p 44.

134 Kriesberg, op cit, p 8.

135 Large power differences, for instance, can be in themselves a source of grievance to the less powerful. At the same time, they can deter overt expression of the grievance. Yet, if power differences are small suggesting that perhaps the distribution of valued resources is fair, one of the parties may misjudge its power and think a marginal advantage can be obtained with only a little effort.

136 Kriesberg, op cit, p 105.

137 In this respect see H Miall with O Ramsbotham & T Woodhouse, op cit, p 70. Also the original development of this in E E Azar, *The management of protracted social conflict. Theory and cases,* Darmouth Publishing Company, 1990, pp 7–12.

138 Miall with Ramsbotham & Woodhouse, op cit, p 73.

139 As Edward Azar points out, "deprivation or satisfaction of human needs for physical security, access to political and social institutions, and acceptance of communal identity (i.e. political pluralism) is largely a result of social, political and economic interactions. In the modern world, the regulation of such interactions, and thus the satisfaction of these basic needs, is undertaken by the political authority called the state". Azar, op cit, p 10. Miall et al add that "at whatever level the main sources of contemporary conflict may be seen to reside, it is at the level of the state that the critical struggle is, in the end, played out". Miall et al, op cit, p 84.

140 See for example, Brown, Introduction, op cit, pp 1–33. As well as Brown, The causes and regional dimensions of internal conflict, op cit, pp 571–603.

141 Goodhand with Vaux & Walker, op cit, p 11. For these authors, structural analysis entails looking at the long-term factors underlying violent conflict.

142 See King, op cit, p 29.

143 Adapted from Brown. Introduction, op cit, p 14.

144 In this respect see *inter alia* I W Zartman,*Collapsed states: The disintegration and restoration of legitimate authority,* Lynne Rienner, Boulder, Colo., 1995.

145 In fact, as Joel Migdal points out, "it is impossible to understand states – whether we want to look at international or domestic relations – without placing them in the contexts of the societies within which they interact with other social organisations, for it is from these interactions that states draw their strength and find their limitations. The myth of sovereignty assumes the freedom of states to pursue their own interests in the international arena, and the myth of state autonomy takes the coherence of states for granted, as it does the distance from other societal forces. In fact, whether states are sovereign or autonomous is a historical question that cannot be decided a priori. A more fruitful approach is to examine the state in the context of those forces impinging upon its ability to act unfettered". J S. Migdal, Integration and disintegration: An approach to society formation, *Between development and destruction.An enquiry into the causes of conflict in post-colonial states*, op cit, p 92. Using the definition of state making proposed by Cohen, Brown and Organski (as 'primitive central power accumulation'),Mohammed Ayoob posits that "state-making must include the following: (1) the expansion and consolidation of the territorial and demographic domain under a political authority including the imposition of order on contested territorial and demographic space (war); (2) the maintenance of order in the territory where, and over the population

on whom, such order has already been imposed (policing); and (3) the extraction of resources from the territory and the population under the control of the state essential to support not only war-making and policing activities undertaken by the state but also for the maintenance of state appliances necessary to carry on routine administration, deepen the state's penetration of society and serve symbolic purposes (taxation)'. M Ayoob, State-making, state-breaking and state failure, Van de Goor et al, op cit, p 69. In this respect see Y Cohen, B R Brown and A F K Organski, The paradoxical nature of state-making: The violent creation of order, *American Political Science Review*, vol 75, no 4, 1981. Also C Tilly in War-making and state-making as organised crime, *Bringing the state back in*, P B Evans, D Rueschemeyer & T Skocpol, Cambridge University Press, 1985.

146 Van de Goor et al (eds), op cit, p 9. See also R Jackson, *Quasi-states, sovereignty, international relations and the third world*, Cambridge University Press, Cambridge, 1990.

147 Ayoob, op cit, p 70. For an in-depth discussion of this issue see K.J. Holsti, *The state, war, and the state of war*, op cit, in particular Chapters 3 and 4.

148 Miall with Ramsbotham & Woodhouse, op cit, p 86.

149 See Holsti, *The state, war, and the state of war*, op cit, Chapter 4, pp 61–81.

150 Ibid, p 9.

151 In this respect see J Snyder, Nationalism and the crisis of the post-Soviet state, *Survival*, vol 35, no 1, Spring 1993, p 12. As Michael Brown points out, "when state structures weaken, violent conflict often follows. Power struggles between politicians and would-be leaders intensify. Regional leaders become increasingly independent, and, if they consolidate control over military assets, virtual warlords. Ethnic groups which had been oppressed by central authorities are more able to assert themselves politically, perhaps by seeking more administrative autonomy or their own states". Brown, op cit, p 14.

152 Brown, Introduction, op cit, p 15.

152 Azar, *The management of protracted social conflict.Theory and cases*, op cit, p 10.

154 Ibid, p 11.

155 Mitchell, op cit, p 20.

156 Miall with Ramsbotham & Woodhouse, op cit, p 86.

157 Brown, Introduction, op cit, p 19.

158 Ibid, p 18–20. As regards the vast topic of conflict and development see, *inter alia* and as an introduction, S P Huntington, *Political order in changing societies*, Yale University Press, New Haven, 1968 as well as 'Civil violence and the process of development, *Civil violence and the international system*, Adelphi Paper no 83, London, IISS, 1971. Also the classic *Why men rebel* by Gurr, op cit, and S Newman, Does modernisation breed ethnic conflict?', *World Politics*, vol 43, no 3, April 1991.

159 Edward Azar considered two main models of international linkage: economic dependency (limiting the autonomy of the state; distorting the patterns of economic development and therefore exacerbating denial of the access needs of communal groups) and political military client relationships with strong states (where patrons provide protection for the client state in return for the latter's loyalty which may result in the client state pursuing both domestic and foreign

policies that are disjointed from or contradictory to the needs of its own public). In this respect see Azar, *The management of protracted social conflict. Theory and cases,* op cit, pp 11–12.

160 Brown, The causes and regional dimensions of internal conflict, op cit, p 590.

161 Kriesberg, op cit, p 244.

162 For an in-depth discussion of the regional dimension, see the excellent chapter by Brown, The causes and regional dimensions of internal conflict, *The international dimensions of internal conflict,* op cit, p 575.

163 Ibid, pp 572–573.

RWANDA
International boundary
Prefecture boundary
Road
Track
National capital
Prefecture capital
Town
UGANDA
DEMOCRATIC REPUBLIC OF THE CONGO
UNITED REPUBLIC OF TANZANIA
BURUNDI
RWANDA
KAGERA NATIONAL PARK
BIRUNGA NATIONAL PARK
RUHENGERI
BYUMBA
KIGALI
GITARAMA
BUTARE
KIBUNGO
GISENYI
KIBUYE
GIKONGORO
CYANGUGU
Kigali
Gitarama
Butare
Byumba
Ruhengeri
Gisenyi
Kibuye
Gikongoro
Cyangugu
Kibungo
Kigali
Kivu
Ruzizi
Kagera
Nyabarongo
Akanyaru
Lake Kivu
Lake Mohazi
Lake Bugesera
Lake Ihema
Lake Rwanda
Lake Muhazi
Lake Cyambwe
Lake Mugesera
Lake Nasa
Lake Rweru
Lake Cyohoha
Lake Ihema
Lake Rwanda
Lake Muhazi
Lake Mugesera
Lake Cyambwe
Lake Nasa
Lake Rweru
Department of Public Information
Cartographic Section
Map No. 3717 Rev. 7 UNITED NATIONS
December 1997 (Colour)
The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

Chapter Two

Land Scarcity, Distribution and Conflict in Rwanda

Jean Bigagaza, Carolyne Abong and Cecile Mukarubuga

Introduction

Rwanda is a small country of eight million people in central Africa, with a long history of violent conflict dating back to 1959, and culminating in the 1994 genocide. Conflict in Rwanda has created a large refugee population in neighbouring countries, with Uganda and Tanzania being the largest refugee recipients before the 1994 genocide, and the Democratic Republic of Congo (DRC) receiving the largest number of refugees after the genocide. As this study will show, the Rwanda refugee population has had a destabilising effect on the entire Great Lakes region, including on Rwanda itself.

This chapter examines the relationship between land scarcity and conflict in Rwanda. Historically, land pressure has been a severe problem in Rwanda, where over 90% of the population practises agriculture. Land pressure has resulted in declining overall agricultural production, but increasing production for individuals and groups with favourable land and resource access. Cultivation is encroaching into wetlands, national parks and forest reserve areas to satisfy unmet demands for land by some, predominately underprivileged, groups. Large numbers of internally displaced persons have worsened stress in some ecologically sensitive areas, such as in forests, resulting in localised degradation of forest resources.

We will assess the power dynamics in Rwanda insofar as power through control of the state is essential to control land. We will demonstrate that elite power struggles for control of the state links land and conflict in Rwanda where, historically, control of the state is the principal factor in rights to access, use and ownership of land. While many analyses focus on linkages between conflict and ethnicity, less attention has been focused on the role of land scarcity in the Rwanda conflict. A thoughtful analysis of the so-called ethnic conflict in Rwanda will show ethnicity is a cover for competition to control scarce land. Indeed, this study argues that the causes of conflicts in Rwanda lie in competition to access and control scarce land.[1] We do not imply that land scarcity is the ultimate or most important root cause of the Rwandan conflict. It is, however, a critical component of the complex and intertwined causal factors.

Since 1980 powerful economic, political and social grievances in Rwanda

relate to land scarcity. Overpopulation as well as inequitable distribution of land worsened land scarcity for the rural poor. Increasingly, political power and representation by elite groups at the national level determined control of land. Widespread disinheritance of land rights of the rural poor coupled with resource capture by elite groups has been closely related to deepening rural poverty in the 1980s and 1990s.[2] Deepening rural poverty, in effect, led to violent conflict.[3] Ethnic differences were less important in understanding the dynamics of the conflict than were elite competitions to dominate critical environmental decision-making processes through control of the state. In turn, elite groups characterised these competitions in ethnic terms. Over time, different groups in the conflict were polarised along ethnic lines and were purposefully driven to conflict through ideologies propagated through official media. Gasana observes that the rural poor (both Hutu and Tutsi) described the ruling elite collectively as *abaryi* (eaters) who to them represented a new, exploitative ethnic category.[4] It can therefore be argued that the conflict in Rwanda was ultimately a struggle against inequitable distribution of land, tragically fought along ethnic, Tutsi versus Hutu, lines.

Recent studies of the Rwandan conflict have come to appreciate and acknowledge the role played by ecological scarcity.[5] Many studies, however, still focus intently on the role of ethnicity in the conflict. Homer-Dixon has described Rwanda as a country with severe demographic stress in the period leading to the genocide.[6] In 1991, Rwanda had an estimated population of 7.5 million and a growth rate of 3.3% annually. It had the highest population density in Africa at 271 persons per square kilometre, and between 400 and 800 persons for arable land depending on the prefecture.[7] Ninety-five percent of the overall population inhabits 43% of the total cultivated land. The population density in the rural areas is up to 843 persons per square kilometre. [8]

Land contributed to conflict in the following two ways. The first is population pressure leading to competition for scarce land; the second was the inequitable distribution of land, most of which was controlled by elite groups. Having established the links between land scarcity and conflict in Rwanda, this study uncovers a number of lessons for other countries faced with volatile land issues. These lessons may inform prevention strategies, such as the development of early warning and early response systems.

The failure of the Arusha peace process for Rwanda and of the United Nations intervention force in Rwanda (UNAMIR) to manage the Rwandan conflict effectively suggests that there was a widespread failure to account for the root causes of the conflict. This study demonstrates the importance of including land and resource considerations in conflict prevention and management policies and processes. The Arusha peace process failed in part because it focused on the ethnic dimension of the conflict while ignoring deeper and more critical issues relating to land and resource rights. The lessons for conflict analysts and policy makers are many.

Background to the Conflict

Prior to the arrival of Belgian colonisers, Rwandan society had developed over centuries into a remarkably organised state, with a high degree of centralised authoritarian social control.[9] King Rwabugiri, the former Tutsi King of Rwanda, ruled the formerly semi-autonomous Tutsi and Hutu lineages harshly, confiscating their lands and breaking their political power. The king entrenched inequalities through the spread of *uburetwa*, a feudal system under which poor Hutu farmers exchanged labour for access to land owned mainly by Tutsi. As a result, polarisation and politicisation of ethnic groups started. Land became a factor of differentiation between Hutus and Tutsis.[10]

There is a long history underlying the relationship between land and politics in Rwanda. Land was used during the colonial era to divide the Rwandan population along ethnic lines. When Belgian colonisers came to Rwanda they favoured the Tutsi for administration, in effect establishing a governing class of mainly Tutsi. They adopted the indirect rule system that enabled Belgium to extract more taxes and labour from small farmers, mostly Hutu. Belgian colonisers justified their preferential treatment of the Tutsi by relying on racist ideologies. The Tutsi governing class, meanwhile, exploited their authority by seizing cattle and land from other Tutsi and Hutu peasants. King Rwabugiri also used land to increase tension between the Hutu and Tutsi. During and after the period of colonial rule, the governing class in Rwanda once again used land to polarise the Hutu and Tutsi ethnically. Insecure rights to land and resources for the rural poor were mobilised for political gain.

A number of analyses have traced the historical background to the Rwandan conflict, and in particular, the 1994 genocide which saw the death of an estimated 800,000 Rwandans mainly Tutsi and moderate Hutus.[11] Many of these works link the civil war and the genocide to the colonial period.

There is a widespread belief that German and later Belgian colonialists reinforced divisions between Hutu, Tutsi and Twa ethnic groups. This was in part the result of a racialist colonial perception that viewed Tutsi as superior to other groups, including Hutu. The Tutsi were treated preferentially by Belgian colonial authorities. This, consequently, strengthened Tutsi hegemony over the Hutu. Historically, Tutsi and Hutu identities were not clearly defined. The terms Hutu and Tutsi appear to have originally been flexible in that a man could be Tutsi in relation to his clients or inferiors, and Hutu in relation to his patrons or superiors. It was possible for those born Hutu or Twa to be ennobled to hold elite positions thus becoming Tutsi. Colonialists, however, by favouring Tutsi on the basis of racialist ideology, reinforced ethnic divisions. These differences were reinforced by the introduction of compulsory identity cards in 1931, which indicated ethnicity.

At this point, Rwandans began to relate more to their respective ethnic groups, which would be critical to determining access to political representation

and access to resources. Colonialism thus sharpened the differences between Tutsi and Hutu. At independence the new government continued the use of identity cards. These would be used later to identify Tutsi during the genocide. According to Prunier[12], the Republic of Rwanda, created at the end of colonial rule in 1962, was ethnically divided. Others note the long history of political and economic rivalries between the Hutu and Tutsi ethnic groups that predate the contemporary conflict. This rivalry found expression in the periodic outbreaks of violence leading to regular surges of large refugee outflow.

The first major conflict in the history of Rwanda was the 1959 so-called 'Hutu revolution' against Tutsi hegemony. The ethnic animosity and Hutu discontent created in the colonial period was catalysed and Hutu chiefs organised the killing of rich and poor Tutsi. The abrupt shift in Belgian policy, and the role played by the Catholic Church in empowering the Hutu against the Tutsi, paved the way for this revolution. The 1959 'social revolution' marked a period during which the Tutsi were excluded from participating in political and economic processes in Rwanda. Though known as a Hutu 'revolution', only a minority Hutu elite were to benefit. Poor Hutu were largely excluded from national political and economic processes, as well. Thus, the social revolution substituted one elite group for another.

The majority of the rural poor, both Hutu and Tutsi, remained outside the realm of official politics and the formal economy. Education and employment opportunities and positions in the military were reserved for a small Hutu elite from the north. Thus in the 1990s, when power and access to resources was concentrated in the hands of the northern elite, a pervading sense of frustration with formal politics and economy, and its inability to ensure livelihood security for most groups, ignited conflict. Ethnic divisions, therefore, were not the cause of the conflict. Instead, these were the result of political manipulation by a powerful ruling elite.

The 1959 conflict saw a mass exodus of Tutsi refugees into neighbouring countries, especially Uganda[13]. Tutsi refugees in Uganda reorganised themselves and in 1963 launched the first military invasion into Rwanda in an attempt to capture the state. The invasion was unsuccessful and resulted in widespread killings of Tutsi and accelerated flows of refugees into neighbouring countries.[14]

The period between 1963 and the 1990 civil war was one of uncertainty, marked by Tutsi armed incursions into Rwanda and ethnic cleansing of Tutsi inside Rwanda. The post-independence period was thus marked by ethnic violence between Hutu and Tutsi and Tutsi refugee outflows mainly to Tanzania and Uganda. The subsequent Hutu governments fostered and manipulated ethnic divisions to maintain a popular rural support base.

In 1990, the Rwanda Patriotic Front (RPF) organised an armed invasion into Rwanda, from Uganda. Predominantly Tutsi, many of the RPF members were refugees or children of refugees driven out of Rwanda in the aftermath

of the 1959 conflict. 1990 thus marked the beginning of a civil war that by 1992 had displaced one-tenth of the population and widely disrupted agricultural activities.[15] Even after the signing of the Arusha Peace Accords in August 1993, hostilities continued. During this period, radical Hutu plotted the genocide with the support of the government.

Tensions reached a climax on April 6, 1994, when the plane carrying Rwandan President Juvenal Habyarimana and his Burundian counterpart, President Cyprien Ntaryamira was shot down, killing them both and marking the beginning of the genocide. Fighting between the RPF and the Rwandan defence forces (*Forces Armées Rwandaises* or FAR) escalated and within a period of 100 days an estimated 800,000 Tutsi and Hutu moderates were killed by members of a radical Hutu militia group.[16] The RPF emerged victorious in July 1994 and leads the government in Rwanda to this day. However, full peace and national reconciliation is still elusive. Persistent armed incursions into Rwanda that are organised by members of FAR and the Hutu militia group responsible for the genocide (the *Interahamwe*, now operating under its French acronym PALIR, or the *Peuple en Armes Pour Liberer le Rwanda*) continue.

In the post-genocide period, the precarious refugee situation continues to be a source of insecurity and instability to Rwanda. The government of the neighbouring Democratic Republic of Congo (DRC), where many ex-FAR servicemen and Hutu militia sought refuge, has either been unwilling or unable to disarm them, sometimes seeing them as allies in a common struggle against Rwandese occupation.[17] Rwanda justifies the presence of its occupying forces in the DRC on the grounds of the continued presence of FAR and PALIR cells inside the DRC. Rwanda feels that its national security is threatened as long as the PALIR continues to operate from inside the DRC. Rwandan President Paul Kagame has stressed that Rwanda's DRC policy is to contain PALIR military activities.

Key Factors

Although the importance of ethnicity should not be overestimated, it is still important to trace the use of ethnicity in conflict discourse. In Rwanda, historical narratives of social injustice were employed by Hutu extremists prior to the genocide in 1994 to justify their exclusive claim to power.

Prunier[18] analyses the role of colonialism in creating a cultural mythology that informed the ideology and actions of Hutu and Tutsi, and the role of this mythology in causing conflict. To Prunier, although conflict in Rwanda can be viewed as a power struggle between Hutus and Tutsi dating to colonialism, ethnicity is not necessarily the most important factor to understanding the conflict. He cautions against dividing the Rwandan society into Hutu, Tutsi

and Twa tribes. As Prunier explains, they share the same language and culture and, historically, coexist without separate tribal homelands.[19]

In Rwanda, there are no ethnic distinctions in terms of language, culture and religion. According to Vidal, it would be simplistic to understand the Rwandan conflict as a manifestation of ethnic differences. Like Prunier, Vidal sees ethnicity in Rwanda as a colonial creation, but one that was exacerbated and manipulated by extremist politicians to maintain popular support and control of the state. Reyntjens disagrees, and claims that ethnicity always existed in Rwanda and is to blame for the 1994 genocide.[20]

It is informative to note the patterns of ethnic division in Rwanda, and the contexts in which ethnic divisions are raised in relation to specific political and economic aims, including, importantly, control of the state. Conflict in Rwanda to control the state illustrates the importance of state institutions and other decision-making structures, for instance, to determine land and resource rights. Lee observes that such conflicts have been common throughout human history: "Communities have fought to preserve access to scarce resources or to prevent another from gaining such access."[21]

During the Habyarimana regime, power was concentrated in the hands of the *akazu*[22]. The *akazu* mainly came from the northern prefecture of Gisenyi and supplied a third of top government jobs and almost all heads of security apparati. They also benefited disproportionately from state development projects.[23] The *akazu* dominated the state and maintained virtual exclusive control over Rwanda's land and resources using the laws and institutions of the state. Thus in Rwanda, the question of who controlled which decision-making structures and processes to decide ownership of what land and resources and for which groups was the key issue underlying conflict leading up to civil war and genocide. Conflict to capture the state was simply the means used to gain or maintain control of scarce land and natural resources.

In viewing conflict in Rwanda through the lens of state control, it must be critically questioned how arguments of ethnic difference were used to support the war and genocide. Storey[24] lists the following strategies adopted by the *akazu* to deal with challenges to their domination of the state and control of land and natural resources:

- mass propaganda that blamed the Tutsi minority for poverty, famine and general economic hardship;
- violence against opposition figures; and
- genocide.

The international advocacy group Human Rights Watch has documented incidences of ethnic incitement of rural populations by elite groups.[25] In the 1980s and 90s, the gap between the rulers and the ruled (both Hutu and Tutsi) was clearly widening and poverty was at a record peak. But with the advent of multiparty democracy, and the Arusha Accords, electoral competition and

forced government concessions to the RPF threatened to deprive the *akazu* of its control of the state machinery. Therefore although both poor rural Hutu and Tutsi were denied secure rights to land and resources, the *akazu* popularised a view that predatory Tutsi were the source of deprivation among Hutu peasants, and were accomplices of the rebel Rwanda Patriotic Front that was seeking to overthrow the Hutu dominated government.

The *akazu* regime, faced with widespread internal and external opposition, manipulated ethnic differences to incite violence and genocide in order to weaken Tutsi-led opposition.[26] In zero-sum competitions to control scarce land and resources, where the gain of one group implies the loss of another, ethnicity is a convenient guise for elite competition. Ultimately, grievances over access to and control of scarce land and resources assumed an ethnic orientation in Rwanda.

The multiple effects of economic decline, population pressure, structural adjustment policies (SAPs) and growing internal opposition weakened the government's legitimacy and its administrative ability, thus contributing to conflict in Rwanda. Declining government revenues owing to the sharp fall in world coffee prices, Rwanda's main export earner, caused the economic slump of the 1980s. Together with SAPs, the already exhausted economy was weakened further. The rural poor were hardest hit.

Collins,[27] Chossudovsky[28] and Karnik[29] attribute the weakness of the Rwandan state to the policies of the World Bank and IMF. They observe that SAPs imposed on Rwanda by international lenders in the early 1990s destroyed economic activity and rural livelihoods. Ruling elites, however, were spared devastating effects by passing the cost of structural adjustments onto the poor. SAPs also fuelled unemployment, which was already at critically high levels and created a situation of general social despair. Chossudovsky claims that it was the general impoverishment of the population that contributed to desperation, insecurity and violence.[30] These factors combined with the effects of the 1988–89 drought to induce ever higher levels of stress among the rural poor. The rural poor, in response, devised a variety of strategies to strengthen their livelihoods, including complicity in genocide motivated by incitement from elite political leaders.

These crises prompted the 1990 RPF invasion. According to former Rwandan President Pasteur Bizimingu, the Rwandan political system was on the verge of collapse owing to this situation, and any push from outside would only have completed the process of its collapse.[31] However, with growing internal demands for democratisation, and with the government threatened by these crises as well as an imminent RPF invasion from Uganda, extremist political parties, notably the *Coalition Pour la Defence de la Republique* (CDR) and part of the *Mouvement Republicaine pour la Democratie et le Developpment* (MRND) began systematic campaigns and attacks against the Tutsi.

Refugees have been and continue to be a source of conflict in Rwanda. The conflicts of 1959 and 1963 forced a number of Tutsi into exile. These refugees

were denied the right of return by the Habyarimana government. Towards the end of the 1980s, there were about 480 000 refugees (representing about 7% of the population and almost half the entire Tutsi population) seeking to return to Rwanda, but who were denied this by the government. Refugees claiming the right of their return to Rwanda posed a major challenge to the government, which refused, officially because of population pressure and scarce land.[32] The right of refugee return was a key objective of the RPF, comprised predominantly of exiled Tutsi. Tutsi refugees since independence had organised armed incursions into Rwanda. These were followed by retaliatory attacks by the Rwandan defence forces on Tutsi populations within Rwanda. The RPF invaded Rwanda in 1990 in order, it claims, to ensure the return of refugees to Rwanda. Thus by failing to deal with the refugee problem prior to 1990 and by denying their return, the government set the stage for future civil war in Rwanda.

Internally Displaced Persons (IDPs) have also contributed to the conflict in Rwanda by worsening land and resource scarcities in areas where they settled. Thousands of IDPs were created as a result of the civil war in Rwanda dating from 1990. Gasana claims that Byumba, Butare and Ruhengeri prefectures hosted up to one million IDPs, severely straining scarce resources in these areas.[33] He sees a powerful interaction between scarcity of land and resources and IDPs, which, according to him, aggravated the conflict.

Currently, Hutu refugees are an important source of instability in Rwanda and the Great Lakes region in general. These are mainly ex-FAR soldiers and Hutu militia who organise armed incursions into Rwanda from the DRC. It is clear that as long as the refugee problem is not resolved, long term peace and national reconciliation in Rwanda will be impossible. Thus in November 1996, the Rwandan government, frustrated by the growing number of armed attacks from refugees based in the DRC, closed down refugee camps. However, many of the refugees declined to return and retreated deeper into the DRC, thus remaining a source of insecurity to Rwanda to this day.

The post-genocide massive return of Tutsi refugees (first caseload refugees) has led to conflict over ownership of property and land. The ongoing return of Hutu refugees (second caseload refugees) from closed refugee camps in the DRC has placed an enormous strain on scarce resources and is a source of conflict between first and second caseload refugees competing for ownership of land and property. As a result Rwanda is faced with the monumental task of resolving competing land and property claims.

Key Actors

By 1990, the Rwandan state had increasingly become authoritarian and unpopular, especially among the rural peasantry, and was facing threats both internally from opposition parties, and externally, from the RPF.[34] It is argued

that extremist political parties within the Habyarimana government, struggling for survival, saw conflict and the genocide as a last attempt to survive.[35] The government and extremist political parties, notably the CDR and a section of MRND, then became the most outspoken protagonists on the government's side. Senior and influential elites in the Habyarimana government manipulated existing grievances, especially grievances concerning land scarcity and economic hardships, to create a conflict pitting Hutus against Tutsis to maintain political power amid growing internal opposition.

Rebel and militia groups constitute a second category of actors and are predominantly composed of refugees, with the first caseload refugees made up of Tutsis and the second caseload refugees made up predominantly of Hutus. Prior to the 1994 RPF victory, Tutsi refugees forcefully attempted to return to Rwanda, and in the process, destabilised social and political systems in Rwanda. The RPF was composed of exiled and refugee Tutsi. Currently, Hutu refugees, many whom are ex-FAR soldiers and members of former paramilitary groups, have regrouped from bases in the DRC and formed the new armed group, PALIR, whose goal is to capture the Rwandan state by force. PALIR remains a dangerous and destabilising force to the government of Rwanda, which is seeking reconstruction and national reconciliation of the population. The *Armée de Liberation du Rwanda* (ALIR), the armed wing of PALIR, continues to carry out armed attacks into north-west Rwanda from bases inside the DRC. Violent conflict between the Rwandan army, RPA, and Hutu militia groups continues today.

Local populations participated in the conflict in two ways. The first was through direct armed support in the genocide and civil war. A second was to assist armed opposition groups against the government, an opposition that emanates from their grievances concerning economic marginalisation and disinheritance of land and property. During the 1994 conflict, the rural peasantry played a major role in terms of carrying out the genocide orders.[36] Prunier observes that one of the incentives for the rural poor to be involved in the conflict stems from land and resource scarcities. In his view, Hutu peasants killed the Tutsi because they would inherit the land of the murdered Tutsi.[37] To the poor rural Hutu, inheritance of additional land and property was a big incentive to participate in the genocide.

Conflict Management Strategies

The conflict in Rwanda received little international recognition for a long period. This changed following the outbreak of civil war in 1990 and the massive human rights violations accompanying the war, and the threat these posed to regional peace and security in central Africa.[38] Following the civil war that broke out in 1990, the government and RPF entered into negotiations in Arusha,

Tanzania, with the aim of finding peaceful solution to the conflict. The negotiations, initiated by the Organisation of African Unity (OAU) and facilitated by the government of Tanzania, began in July 1992 and were concluded in August 1993. The Arusha peace process was the first major international response to the war. The subsequent Arusha Accords provided for the following:

- a ceasefire;
- the formation of a broad-based transitional government with power sharing;
- incorporation of the RPA into the army; and
- return of all refugees.

In June 1993, just before the Arusha Accords were signed, the UN Security Council established the United Nations Observer Mission for Uganda and Rwanda (UNOMUR). The mandate of UNOMUR was to ensure that no military assistance crossed the Uganda border into Rwanda.[39] The United Nations Assistance Mission for Rwanda (UNAMIR) was established after the signing of the Arusha Accords and the establishment of a ceasefire between the RPF and the Rwandan government. UNAMIR's overall mandate was to support implementation of the Accords as well as to protect humanitarian organisations operating in Rwanda during the transitional period.

Extremist groups within the government, notably the CDR and a faction of MRND, were opposed to the Arusha Accords, which they believed gave too much power to the RPF, including key defence and health ministerial positions, as well as large influence in the national armed forces.[40] The governing Hutu elite began to undermine the Accords with the support of extremist Hutu elements. In particular, the extremist Hutu party (CDR) did not participate in the peace process and was not included in the Accords, leading to their armed opposition. At the time, the CDR was a major political force in Rwanda. Adelman[41] argues that the exclusion of the CDR from the Arusha peace process was its major shortcoming. Only four days after the signing of the peace agreement, 'ethnic' massacres began in Kibuye, for which extremist Hutu groups were held responsible.[42]

The main lesson emerging from the failed Arusha peace process for Rwanda was that zero-sum solutions that exclude some groups, no matter how strong, are unworkable. Furthermore, the Arusha peace process focused more on the ethnic parameters of the conflict while overlooking other important causes, such as pervasive unequal land ownership, decreasing international value of agricultural commodities and deepening rural poverty. However, effective interventions in conflict are only possible when all sources of conflict are recognised, and the dynamics between these understood.[43] The Arusha peace process was preoccupied with issues of power sharing, elections and the composition of armed forces, all which were meant to diffuse ethnic sources of conflict. Although these were important considerations, by not addressing

other sources of conflict, these considerations alone were not sufficient to manage the conflict.

The UN assumed responsibility for overseeing the implementation of the accords under UNAMIR, which had a broad mandate including peacekeeping, humanitarian assistance and general support to the peace process during the transitional period. However, the deployment of UNAMIR peacekeepers was slow and they lacked the mandate to coerce combatants to observe the Accords. The international community, meanwhile, was focused on the apparent success of the peace process, and neglected to devise a contingency plan to address the conflict should the ceasefire break (which it did).

The design of the intervention was traditional and did not consider the nuances of the Rwandan situation, nor account for the rapidly shifting dynamics of conflict and peace in the country. Events inside Rwanda were widely misinterpreted by the international community and did not distinguish between impending genocide and civil war. Hence when the genocide began, it was considered part of the civil war. The international community maintained its distance from events on the ground while reducing its mission to a mere 270 observers. Apparently, the UN was basing its actions on the Somalia experience, from which it recognised the need to maintain some measure of neutrality. However, the conflict in Rwanda differed greatly from Somalia.

After the genocide had begun, the UN authorised the deployment of French troops as part of Operation Turquoise with the purpose to establish a safe humanitarian zone for the protection of civilians. Operation Turquoise was authorised under Chapter 7 of the UN charter to use force to achieve its humanitarian objectives (unlike UNAMIR that was established under Chapter 6 and hence lacked enforcement powers). Even though it did manage to save some lives in the humanitarian zones, and facilitated the flow of humanitarian assistance to displaced populations, it did not succeed in halting further hostilities and the massacre of civilians. It is argued that Operation Turquoise, which was seen as more sensitive to francophone interests, protected the status quo in Rwanda at the time, whereas the rebel RPF movement was viewed as squarely anglophone.

In the post-genocide period, the UN explored methods of national reconciliation and peace building with a focus on ending the culture of impunity that was entrenched in Rwanda. The UN established the International Criminal Tribunal for Rwanda (ICTR) in November 1994 to facilitate the process of national reconciliation and reconstruction. The trial of suspected perpetrators of the genocide is one of the mechanisms by which the international community hopes to create conditions for justice and reconciliation leading to peace building and stability in Rwanda. Also, by placing the responsibility for human rights violations and other atrocities on specific individuals rather than an ethnic group, it is hoped that the tribunal can help

to diffuse ethnic tensions, and deter such atrocities from being committed again. Individual trials avoid laying blame for the genocide on Hutu, many of whom were killed in the events of April and May 1994 as well.

The ICTR trials in Arusha are complemented by trials in Rwanda. Since 1999, revival of the *gacaca* traditional court system has been discussed, and recently implemented, as an option to alleviate pressure on the overburdened justice system in Rwanda. *Gacaca* courts will be held at the local level by locally elected judges and have jurisdiction over the minor categories of crimes committed during the genocide. It is too soon to judge the ability of the *gacaca* courts to contribute to the process of reconciliation and justice. However, it is clear that its success will depend on the ability of the 'traditional' judge to be distant enough from the genocide to pass fair judgments that are considered legitimate and acceptable to all parties concerned.

The Rwandan justice system is overburdened with the responsibility of bringing justice to those who survived the genocide. Many years after the genocide in 1994, several thousand suspects still languish in custody without trial or due process of the law. In order to ease pressure on the justice system, it is proposed that traditional *gacaca* courts headed by local elders be revived to deal with minor cases. The courts will function from the cellule to the prefecture levels. The cases to be tried would be those in Categories 2 and 3. Category 2 is for those accused of overseeing massacres and for failing to prevent them when in a position to do so. Category 3 is for those who killed or looted during the genocide. Category 1 which would not be tried by the *gacaca* courts is for the planners of the genocide. Those found guilty in *gacaca* courts will be able to appeal to another court. Legislation to establish *gacaca* was adopted in October 2000.

The *gacaca* is controversial in Rwanda. Many, particularly Tutsi, question whether *gacaca* will bring about intended justice and reconciliation in Rwanda. Many Tutsi believe the *gacaca* are predisposed to leniency towards genocide suspects. For example, the Rwandan Justice Minister, Jean de Dieu Mucyo, claimed that community service could be an option for sentencing in *gacaca*.[44] It is feared that revenge attacks by genocide survivors on those sentenced in *gacaca* could develop, thus sabotaging the reconciliation it is aiming to achieve.

Another consideration is that the integrity and credibility of traditional courts has rested on the people selected to fulfil the role of arbitrator or judge. However, population displacements and resettlement after the genocide imply that the structures of community life in most areas have been disrupted. This would make it hard for the prospective *gacaca* judges to establish credibility both with the accused and with the genocide survivors. Credibility of the court and its decisions will be essential for real justice and national reconciliation in Rwanda.

In contending with the destabilising refugee situation, the government, with the help of the United Nations High Commissioner for Refugees (UNHCR), has undertaken confidence-building measures to encourage the

safe return of refugees, including those engaged in the genocide. However, the government of Rwanda has also moved to forcefully close refugee camps within Rwanda and in the DRC. In any case, the safe return of refugees is vital to the normalisation of political, economic and social orders in Rwanda, and is key to the long-term stability of the country.

Prior to the genocide few non-governmental organisations and other civic bodies operated in Rwanda due to the extensive control that the Habyarimana government exercised over civil society. International organisations, such as Oxfam, International Alert, and *Medecins sans Frontieres*, maintained limited operations in Rwanda, primarily to observe human rights and provide early warning information for conflict managers. Following the 1993 ceasefire brokered as part of the Arusha peace process, international organisations monitoring the situation in Rwanda warned that extremist forces linked to the Habyarimana government were arming and organising themselves to derail the peace process.[45] They also warned of human rights violations, including extrajudicial executions of civilians.[46] These warnings, however, were largely ignored by the international community.

In contrast to the situation before the genocide there has been large-scale humanitarian intervention in Rwanda by international organisations in the post-genocide period.[47] The international community, criticized for its failure to intervene before the genocide, provided substantial emergency assistance and reconstruction aid following the end of the civil war in 1994. It has supported macro-economic reforms and the re-establishment of basic services in Rwanda. Economic growth is widely seen as essential for long-term peace and stability in Rwanda and throughout the Central Africa region. The IMF and World Bank have supported a number of reforms in Rwanda to benefit reconstruction, and the United Nations Development Programme (UNDP) established a trust fund for Rwanda to channel aid for building the capacities of institutions and the state.

There has also been a proliferation of non-governmental organisations in Rwanda in recent years. These organisations are engaged in a wide range of activities to support humanitarian assistance and peace building. Many local organisations[48] address issues such as social justice, human rights, and reconciliation and rehabilitation of those traumatised by the conflict. Faith-led initiatives are prominent among the manifold civic society initiatives started in Rwanda.

Overview of the Environment

Land is the focus of ecological grievances in Rwanda. Rwanda is described as a country with severe population pressure and widespread dependence on limited resources for subsistence.[49] According to Homer-Dixon, demand-induced

scarcity in Rwanda resulted from overpopulation and supply-induced scarcity was caused by decline in soil fertility due to over-cultivation, degradation of watersheds and the depletion of forests.[50] The effects of ecological scarcity were beginning to be felt in the 1980s when food production failed to keep pace with population growth. The population was growing but there was little or no land for agricultural expansion. Earlier expansions into forest reserves had depleted wood fuel leading to scarcity.[51]

In the 1980s and the period preceding the drought, Rwanda moved from being one of Africa's top performers in agricultural production to one facing massive food shortages. Homer-Dixon observes that although food output rose by 4.7% annually between 1962–1982, a higher increase compared to population growth, much of this was a result of expanding cropland areas and a reduction of fallow periods rather than a result of improved agricultural methods, such as the use of fertilizers.[52] Hence by the late 1980s, most land, including steep hillsides, was under cultivation. Soil fertility fell sharply and with a growing population, per capita food production decreased as well. As a consequence, the country began to face severe food shortages, more so in the southern prefectures where internal opposition to the government grew.

The government of Rwanda received overseas development assistance to undertake environmental and development projects to improve rural livelihoods and alleviate poverty. International aid, however, was unevenly distributed, with the bulk of it skewed towards President Habyarimana's home region in the north-west region of Rwanda. Because of this, disenchantment with and resentment towards the government grew in southern prefectures and encouraged the spread of internal opposition to the government. Threats to the Habyarimana's government emerged.

As described earlier, the rural poor bore the brunt of environmental scarcity and were the most visibly affected. Many of these poor families, owing to diminishing size of family land holdings, moved onto unproductive lands that were threatened with massive soil erosion. Resource capture by elite groups and population pressure led to unsustainable land use, such as cultivation on steep hillsides, shortening of fallow periods and deforestation to open additional land for farming. Food insecurity continued to grow up to the time of the genocide. All the while, the rural poor protested against the unequal distribution of land and resources.

Southern elites harnessed the ecological grievances of the rural poor for their own political gains. They stressed that the government invested more in rural development in the north while marginalising the south. When it was clear that growing opposition to the government in the southern prefectures was threatening the legitimacy of Habyarimana's government, the RPF capitalised on the opportunity and launched their invasion from Uganda to the north. The governing Hutu elite, however, was able to cast the conflict as one between Hutu and Tutsi, not between a marginalised majority and privileged

ethno-regional minority. In Gisenyi and Kibuye prefectures in the south, for example, where violence took an ethnic form, elite Hutu exploited the grievances of the poor landless and turned them against their Tutsi neighbours while promising them the Tutsi lands in return.[53]

The civil war displaced up to one million Rwandans inside Rwanda. Many of them settled in areas already confronted with ecological scarcity such as the Ruhengeri and Butare prefectures, whereas others moved into sensitive environments, such as steep hillsides. IDPs increased resource demands leading to fierce competition between themselves and other local inhabitants. Gasana argues that the dissatisfaction of the rural peasantry as well as the grievances of the IDPs were channelled into anti-RPF and anti-Tutsi sentiments, leading to conflict.

Grievances linked to soil erosion also emerged in the highlands of the southern prefectures of Gisenyi and Gikongoro and parts of Butare, Byumba, Cyangugu and Kibuye. These prefectures have acid soils that lack any regenerative capacity when put under intense cropping and are highly erodible. These prefectures all recorded negative rates of food production and hence retained a permanent situation of food scarcity compared to the positive rates recorded in the northern prefectures of Kibungo and Ruhengeri.

Land as a Source of Conflict

The role of land is crucial to understanding the civil war and genocide in Rwanda. Several authors have asserted the link between land scarcity and conflict in Rwanda. Land is the most important asset for most Rwandans and will remain important for many years to come.[54] Around 95% of the active population derives its livelihood from the production of food crops. A common understanding imparted in many analyses of the Rwandan conflict is that population pressure leading to land scarcity was the ultimate cause of conflict in Rwanda. However, it is clear that this view is limited, and that a number of other factors interacted to cause conflict in Rwanda, as Olson[55] notes. Rapid population growth, soil degradation, low prices for agricultural produce, lack of access to productive resources, unequal distribution of land, limited government investment, and limited off-farm opportunities amounted to "production pressure on a constrained resource", in the words of Olson.[56]

Land Acquisition and Access

A 2001 survey carried out by the Ministry of Environmental Rehabilitation and Protection examined several mechanisms used to acquire land in Rwanda, including inheritance, government distribution, the market and by donation.

Inheritance, historically, is the predominant mode of land acquisition for Rwandans. Male children were entitled to inherit land and property from their parents upon the parents' death. However, a new law was recently promulgated that gives the same rights of inheritance to girls.

A second mechanism was acquisition through government distribution. Government authorities allocate land to landless peoples, including returning refugees, in new settlement areas, including swamps and natural reserves. Returning refugees are the primary beneficiaries of government land allocations in the post-civil war and genocide period. However, land distributions by the government are decreasing because there is no additional land for distribution.

Despite limitations in land laws and regulations, a small land market has also developed in Rwanda. However, few have the ability to purchase land on the market. There is a real risk that land distribution will become more disparate as the rural poor are forced to sell their land due to poverty, and other rural poor are financially unable to acquire new land.

Acquiring land through temporary lease is becoming more common owing to the decreasing availability of land for cultivation. Leasing land is one strategy that smallholders and landless farmers use to acquire land for cultivation. They pay rent for each growing season to families with larger holdings or to other poorer farmers who lack the means to farm.

There is a history of donating land to poor kin in Rwanda. However this practice is becoming infrequent owing to growing land scarcity. Instead, relatives of landless families may temporarily loan land for one or more growing season.

The results of a survey carried out in 1988 (Table 1) show a change in the mode of land acquisition. Purchases of land are increasing and are now the primary mode of land acquisition. Formerly, allocation of land by the government was the primary means through which men inherited land on behalf of their families. However, the government is no longer able to allocate large areas of land given that nearly all land in Rwanda is in use.

Table 1: Evolution of land acquisition in time (in % of plots)[57]

Mode of land acquisition	Land owned for more than 25 years	Land owned for less than 10 years
Purchase	2.4	20.4
Clearing	1.6	4.7
Inheritance	72.2	67.5
Donation	8.3	4.7
State allocation	15.5	2.6

According to customary land tenure systems in Rwanda, only men had the right of access to land. Upon marriage, young women had to leave their families to join their husbands who inherited land from their parents. In her new family, a woman could not inherit her husband's property rights; only men were entitled to inherit landed properties. A woman could inherit land only when she had neither male children nor living male relatives of her deceased husband. However, the widow had the right to use her late husband's land as long as she stayed in her husband's house and raised their children. The fact that women did not have the same rights to land and property as men, however, generally did not worsen conflict.

In Rwanda, although women perform more of the agricultural labour, they have benefited less than men from social development. Women's rights to property and land are limited. Moreover, women have few education or employment opportunities often because of persistent social stereotypes that the role of women is exclusively domestic. Women in Rwanda played a central role in the reconstruction of the country. After the genocide they formed an exceptionally large proportion of the population and many had to head their households. Women also assumed new roles in Rwandan society. Some improvements to promote gender equality were made following the war and genocide, such as the establishment of the Ministry of Gender and Social Affairs. The government also plans to create a legal framework that recognises women's rights. The revision of the matrimonial code offers couples a choice of property regimes, including the option to own land and property equally. The labour code and land legislation will remove restrictions on women's ability to work and own property. There are also efforts to mainstream gender in all policies and programmes, empower women through education, targeted micro credit programmes and community safety nets.

New legislation enacted in November 1999 makes it clear that men and women are equally entitled to inherit land from their parents. In the proposed new comprehensive land law, women and men have equal land rights. When this law is enacted, women will be able to inherit land and property from their parents and husbands. Empowerment of women may have indirect benefits for food security, as strong land and resource rights should enable women to invest in greater agricultural production.

Demographics

Population pressure is an important factor contributing to land scarcity in Rwanda. It is well known that Rwanda is the most densely populated country in Africa (329 per square km, against 29 in sub-Saharan Africa in 1998). In the 1980s the population density on arable lands was estimated at 390 persons per square kilometre. In the intensively cultivated regions in southern Rwanda, such as Butare, the population density was an estimated 400 to 500

persons per square kilometre. The 1991 census estimated the Rwandan population to be 7.15 million and overall population density to be 271 persons per square kilometre. This was the highest population density recorded in Africa at the time.[58]

Furthermore, most arable land is under cultivation. In 1998, almost 70% of the estimated 1.3 million hectares of arable land were under cultivation. During the period between 1980 and 1988, the population increased by 3.3 % per annum while the overall agricultural area increased by only 0.3%.[59] The continuous decrease of agricultural land due to population pressure was worsened by the localised degradation of lands already under cultivation. Table 2 shows that natural reserves have decreased by more than 50% as population has increased with a concomitant increase in the demand for land. Whereas the area of arable land increased only by 10%, agricultural households increased by 110% during the same period. By the end of the 1980s, nearly all the arable land for agricultural production was in use. The ultimate impact was severe food insecurity linked to unsustainable environmental practice and resource capture. In 1990, over two million of the total Rwandan population was living under conditions of permanent food insecurity.

If the current trend continues, agricultural conditions in Rwanda will worsen. Already, agriculture is encroaching into protected areas and other ecologically sensitive areas. Based on current population growth and patterns of land use, it is estimated that 82% of all land holdings will be less than one hectare or smaller by 2010. An estimated 38% of all holdings will be smaller than 0.275 hectares.

Land Distribution

Land scarcity was a perennial problem in Rwanda even before the outbreak of civil war in 1990. Owing to a number of interrelated factors, there was insufficient land to meet the needs of the growing population in Rwanda over time. 'Free' land was exhausted and the size of family holdings was decreasing. The size of family holdings declined on average from 3 hectares per family in 1949 to 2 hectares in the 1960s, 1.2 hectares in the early 1980s and 0.7 hectares by the early 1990s. This average, however, conceals great disparities in the size of land holdings, with an increasing number of landless and near-landless peasants at the same time that the size of the largest farms was increasing. Stress induced by high population density chiefly affects smallholders who have few opportunities off the land to begin with.

Unequal land distribution in Rwanda dates back to the 1940s when cattle-owning Tutsi controlled large areas of land to graze livestock. Most of the farming population was settled in the western highlands. The eastern savannas bordering Tanzania were reserved as pasture for grazing Tutsi livestock. The Hutu social revolution of 1959 and national independence in 1962 resulted in

the opening of large rangelands to settlement by Hutu farmers. An unknown number of Hutu migrated to these rangelands from the highlands in western Rwanda, where the local uneven distribution of land resulted in widespread landlessness.[60] Competition for land was fierce at the time. In addition to a cycle of conflict and population displacements prior to and following independence in 1962, there was also a total absence of a land policy or national land use plan.

Resource capture by the elite was evident in the 1980s when the disparity in land ownership between poor rural peasants and the elite grew tremendously.[61] In 1984, nearly 50% of the agriculturally productive land was held on 182 farms out of an overall total of 1 112 000 farms.[62] Furthermore, whereas 43% of poor families owned only 15% of cultivated lands, 16% of rich families owned 43% of cultivated lands.[63] These figures are supported by a survey carried out in 1988 in five prefectures of Rwanda that show 60% of agricultural households owned only 31.4% of arable land while 20% of the population owned 46.9% of the total cultivable land. Increase in population led to further divisions of smallholdings through inheritance, further decreasing the viability of subsistence farming on many plots. Land scarcity among the rural poor forced many to cultivate steep slopes prone to erosion and that are acidic and unproductive.

By the 1990s, Rwanda was thus facing serious land scarcities that were worsened by unequal access to and distribution of land caused by resource capture by the elite. Although more than 90% of the population of Rwanda subsists on various types of farming, most lack secure rights to own land. In 1994, 57% of rural households owned less than one hectare of land, and 25% owned less than half a hectare. In a survey carried out before the genocide in 1994, the Ministry of Agriculture found that 45% of the rural population (estimated to constitute 92% of the total population of Rwanda) were unemployed or landless peasants. Another survey that was carried out by a non-governmental organisation, the Agency for Cooperation and Research in Development (ACORD), in 1998 among 271 village households in Rwanda found that 26% were landless. Furthermore, according to the survey, a majority of landholders had less than one hectare of land. Most of the land belonged to elite groups connected to powerful government officials. Rarely do elite groups fully utilise their land holdings.

Even though the statistics on the disparity of the distribution of land between rich and poor are few, it is clear that the size of farms for rural poor are decreasing in size while the land holdings of the wealthier are becoming larger. Indeed, more privileged individuals and groups possess the financial means to acquire additional land that in many cases they do not use. The unequal distribution of land is presumably a larger problem than population pressure. Widespread disinheritance and unemployment in rural areas posed a number of alarming risks to the government. There is little question that

the political economy of land was a significant factor contributing to the civil war and genocide in the 1990s. The government, unable to address the land issue without incurring a loss of patronage, attempted to use land to maintain control of the state and thereby dominate the institutions and other decision-making structures to allocate scarce land. Meanwhile, elite groups focused on accumulating wealth at the expense of the rural poor. By controlling the state they dominated key decision and rule-making processes to allocate land and resources.

As observed earlier, land scarcity is prevalent for both the Hutu and Tutsi in Rwanda. Resource scarcity is not divided along ethnic lines. Indeed, the great majority of both Tutsi and Hutu did not benefit from the 1959 social revolution. The situation for the majority of the rural poor did not change. Instead, the revolution worsened poverty and inequality and concentrated wealth in the hands of a ruling elite. However, grievances of the poor rural Hutu failed to materialise into protest against the control of the state by a small ruling elite. The government became increasingly insecure as food insecurity grew in rural areas. The government was deeply concerned that growing food insecurity threatened the legitimacy of their rule and state control. Ethnic differences were used to polarise Hutu and Tutsi and to shift responsibility for social injustice onto the Tutsi, regardless of class.

Land Scarcity and Adaptation

Olson[64] identifies four main strategies to mitigate land scarcities in Rwanda. One response to land scarcity is agricultural intensification. Different methods used by farmers included reducing fallow periods, continuous cropping, adopting labour intensive techniques, investing in land capital and switching to higher yielding crops. Intensification of agricultural methods predates independence in Rwanda, when land was distributed in favour of groups who grazed livestock, mainly Tutsi. Hence, Hutu farmers intensified agricultural practices in the western highlands where population densities were high and land was scarce

A second response is to generate income off the land, either through trade and exchange, or by working as agricultural labourers on nearby farms. Opportunities off the land, however, are few. A third strategy is migration to other rural and urban areas. The fourth strategy identified by Olson is family planning, which includes delaying marriage and limiting the number of births within marriage.

The former government of Rwanda, in cooperation with non-governmental organisations and the private sector, pursued a number of other strategies to mitigate the impact of land scarcity. Overall, government investments focused on the agricultural sector. Agricultural policy was based on intensive farming, protection against soil erosion, and the use of selected seeds, fertilizers and

other inputs. However, these were rarely available to smallholders, and the implementation approach adopted by the government was draconian. Farmers themselves adopted zero-grazing systems for livestock, and switched from cattle to smaller livestock, such as goats and rabbits. However, changes to agricultural practice had a very limited overall impact on alleviating land scarcities, particularly for the poorest.

In light of the government's failure to pursue a policy to promote agricultural intensification, expansion of arable land continued throughout the 1980s ahead of the civil war. Pasture areas declined from 487 000 hectares in 1970 to 200 000 hectares in 1986 or to 19% of the overall land area devoted to agriculture. The total cultivated land area during this time expanded from 528 000 hectares to 826 000 hectares.[65] By the late 1980s, 94% of all cropland was devoted to food crops, which took up 42% of the total land area (up from less than 25% in 1965).

Another policy pursued by the former government was to force the Tutsi to migrate to neighbouring countries. The departure, death or flight of more than half of the Tutsi population in the early 1960s and in 1972 opened vast rangelands in the east of the country where Tutsi previously grazed livestock.[66] Land formerly used by the Tutsi was redistributed to rural Hutu for farming.

Land, Politics and Power

Land forms the basis for material wealth in Rwanda. Control of land is required to generate wealth and to sustain livelihoods. It is understandable, therefore, that a vast majority of Rwandans in the time leading up to the genocide were unable to meet basic livelihood needs through subsistence production strategies given that land was scarce, and many were cultivating unproductive marginal lands or were entirely landless. Subsistence production was rarely adequate to sustain livelihoods in the best of times. Few income-generating activities off the land compounded the impact of land scarcity. According to the World Bank rural unemployment had already reached 30% in the early 1980s. Unemployed youth migrated to urban centres to take non-agricultural jobs, such as couriers and security guards.

It was towards the end of the 1980s that an acute famine began in the south of the country and resulted in widespread deaths and population displacements into less populated and more fertile areas, such as the east of the country or to neighbouring Tanzania and Uganda. Land scarcity inevitably led to widespread acute shortages of food. Food imports and aid became increasingly important to cover shortfalls and weaken any potential opposition to the government (See Table 2).

Rwanda is economically dependent on subsistence production that is highly at risk to ecological change. Its economy, consequently, is vulnerable to the effects of stress induced by ecological changes. By the early 1990s, when

Table 2: Food imports 1987–199767

Type	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Commercial imports	25	31	48	56	56	60	42	17	21	39	52
Food aid	13	3	2	2	9	15	134	58	83	130	130
Total	38	34	50	58	65	75	175	75	204	169	182

rural livelihoods were threatened by environmental stress, dissention and opposition grew among the rural poor. Environmental degradation and population growth precipitated the emergence of internal opposition to the government, which could no longer provide welfare for the rural poor. This coincided with a weakening of the legitimacy of President Habyarimana's government.

Prunier observes that during Habyarimana's regime, the land question was becoming increasingly thorny. Population pressure had reached critical levels, and agricultural production was decreasing owing to soil erosion and deforestation.[68] This was worsened by the capture of land by powerful elite groups. The government, however, was less concerned with redressing the root causes of rural deprivation than with maintaining its control of the state. Notably, the government failed to implement any substantive legal and policy reforms to balance inequities in the distribution of land, or other reforms to strengthen the land and resource rights of the rural poor and to prevent further capture of land by the wealthy.

Instead, the government sought ways to maintain its complete control of the state, and to continue its policy of exclusion of the Tutsi minority. The most striking example is the creation of the *Interahamwe* militia, largely made up of frustrated youths. Their parents were no longer able to lend support, so they therefore sought their own means of survival. The Arusha Accords provided for the integration of the two armies – the Armed Forces of Rwanda (FAR) and the Rwanda Patriotic Front (RPF). The government supported the *Interahamwe* as a militia force that could act with impunity to protect the interests of the ruling Hutu elite. A confidential memo from August 1991 that was transmitted to local authorities explained: "Popular self-defence must be assimilated into the population up to the smallest administrative unit (commune). The training of the volunteers shall be given by members of the Rwandese Armed Forces."[69]

For the ruling class, the popular defence force, or the *Interahamwe*, was a critical part of its strategy to maintain control of the state in spite of the integration of the Tutsi into the national armed forces. The popular defence force itself was composed mostly of unemployed youth from rural areas that invited the opportunity for social and economic advancement. Similarly, a news

commentator at the time of the genocide claimed that the ruling elite recruited the militia (*Interahamwe*) from a half-schooled youth, with no sense of direction and easily manipulated by money, beer and Indian hemp. In fact, the *Interahamwe* received priority in employment, government loans, access to land and resources, and education in return for their complete loyalty to the interests of the ruling government.

Since control of the state enabled access to and control of scarce land, a power struggle between competing elite groups to capture the state developed over time. It is this competition that culminated in the genocide. Historically, Hutu occupied land vacated by displaced Tutsi, thereby relieving land scarcity temporarily. While conflict was used to entrench the power of a ruling elite, it empowered poor and rich Hutu alike to claim land vacated by the fleeing Tutsi. In the 1980s, the Habyarimana regime acknowledged that population pressure on land was a major problem facing Rwanda. However, the government reasoned that land scarcity prohibited the return of refugees since there was no land for redistribution. When interviewed by a French newspaper in 1989 on the possible return of Tutsi refugees to Rwanda, President Habyarimana responded, "Rwanda is overpopulated, there is no available space for Tutsi refugees." Instead, the Rwandan government insisted that neighbouring countries, mainly Tanzania and Uganda, take the necessary measures to allow Tutsi refugees to remain permanently. The government went as far as to propagate the view that the Tutsi were colonisers from Abyssinia, to where they should return.

When Tutsi refugees demanded their right to return, the government and Hutu extremist groups purposefully politicised the land issue to fuel resentment among rural Hutu. Furthermore, claims to land by returning Tutsi refugees were used to cast Tutsi intentions as an attempt to capture the state and reclaim scarce land from Hutu. The popular understanding among Hutu peasants at the time was that any returning Tutsi refugees would reclaim their land. The return of Tutsi refugees, therefore, was deeply political and emotional to poor rural Hutu who were concerned with the security of their own land rights. The government considered that all means, including genocide, were necessary to discourage the return of Tutsi refugees and to enlarge Hutu control of land.

Hutu extremists in support of the ruling government calculated acts of genocide by purposefully laying the blame for land scarcity and widespread poverty on the Tutsi minority. According to Prunier, the orders to commit the 1994 genocide (given by government authorities) were heeded by rural Hutu who were led to believe that they would inherit the land of the killed Tutsi. As in the past, the government assured Hutu peasants that land vacated by Tutsi who were displaced or killed would be redistributed to landless Hutu and other smallholder Hutu farmers. Claims to land were a strong motivation underlying recurring pogroms in Rwanda over time. The ruling elite manipulated land scarcity to its advantage, claiming to redress scarcity for the poor rural Hutu.

Thus, in the early 1990s, when the ruling regional Hutu elite from northern Rwanda was challenged by provisions contained in the Arusha Accords, the government increasingly emphasised Tutsi control of rural land and resources to win the popular support of rural Hutu peasants and maintain control of the state. Rural Hutu strongly supported the genocide of the Tutsi and moderate Hutu in 1994. Access to and control of land was essential to sustain rural livelihoods. Hutu are known to have participated in the genocide in the belief that land belonging to the murdered Tutsi and moderate Hutu would become theirs.

Responses to the Land Problem

Migration has been a common feature in the history of central Africa, including Rwanda, since before the arrival of colonialists in the 1800s. Since independence in 1962, migration and settlement have been important elements of the government of Rwanda's land policy.

One programme pursued by the former government was resettlement of rural populations into farming villages. The expressed purpose of the villages was to encourage rational exploitation of arable land in rural areas, mainly by reducing population pressure on the land. Under the resettlement programme, 60 families were resettled per every 120 hectares, or on average two hectares for every resettled family. Peasants signed a contract with the government agreeing to reduce the number of cattle, intensify agriculture and grow cash crops, mainly coffee, in order to increase income. Fragmenting land, as well as inheritance, was also forbidden. The government undertook to provide adequate training and to build basic infrastructure, such as roads, schools, and water supplies. Lands that were redistributed under the programme included national and communal lands, as well as lands belonging to refugees.

However, the resettlement programme failed largely because it was not accompanied by real land reform that redistributed land to the rural poor fairly, or the transfer of technologies to peasant farmers. Overall it was a short-term solution that dealt only with immediate needs. Population pressure was reduced locally in some areas, but it remained a limited response that did not redress the root causes of widespread land scarcity.

After the failure of the first land reform, the government proposed Rural Development Centres (RDCs) to purportedly mitigate land scarcity. The RDCs were to comprise existing rural villages or new centres. The RDCs were to be nodes for rural economic development and diversification. RDCs consisted of two zones of use. The first, the inner zone consisted of grouped settlements around a centre where basic services were available. A second outer zone was reserved for collective farming and livestock grazing. Examples of RDCs include Nyacyonga and Rilima in Greater Kigali, Rutare in Byumba, Rubengera in Kibuye and Rukumberi in Kibungo prefectures respectively.

Although there are few socio-economic analyses of RDCs, there was widespread resistance to RDCs by rural populations. Complaints included that houses were far from the farming area, and that few off-land opportunities were established in the new RDCs.

Besides government-supported programmes for migration and resettlement, there were large-scale spontaneous migrations of rural poor from Rwanda to Tanzania. Although there are many reasons for this movement, the main one must be the lack of land for agriculture and livestock breeding in Rwanda and the availability thereof in Tanzania.

Peasants (mainly from the south), pushed by poverty and land scarcity, sold their smallholdings to buy passage to Tanzania. However, many were returned to Rwanda. The first group returned in 1985 and was resettled in Kibungo region. A second group returned in the 1990s, but remained internally displaced. Many participated in the 1994 genocide.

More recently the government has embarked upon a villigisation (*Imidugudu*) resettlement programme and law reform. Each is discussed in turn below.

The villagisation programme[70] initiated by the government of Rwanda is a reconstruction programme. The government considered *Imidugudu* as a pragmatic solution to the scarcity of property and land, particularly for returning Tutsi and Hutu refugees. It was also seen as a way to mitigate conflict emerging over property and land by the population of returned refugees.

The main problem that the government faces in implementing *Imidugudu* is high population density. The government prefers to settle populations in previously unsettled areas such as the Akagera National Park in the north-east, and in the former presidential hunting grounds near the border with Tanzania in the south-east. However, there have also been cases where people were regrouped into newly constructed villages within the periphery of densely populated urban areas such as Kigali.

UNHCR and other non-governmental organisations initially funded *Imidugudu*. However, the overall aim of the programme was disputed between the donors and the government. The donors wanted a more limited programme that focused on reconstructing shelters for the homeless and returning refugees, whereas the government was interested in a much broader programme of 'regroupment' to promote ethnic and social integration and national reconciliation. Villigisation embodied national reconstruction to the Rwandan government. According to the government, services such as water provision, health facilities and schools could be more easily built in regroupment villages. Furthermore, regroupment villages would be built on marginal lands, opening fertile land for agrarian reforms, including land and resource reforms.[71]

Imidugudu was implemented in Kibungo, Cyangugu, Butare, Byumba, and Kigali prefectures. However, ethnic differences still trouble *Imidugudu*. Local authorities are responsible for identifying beneficiaries of the programme, but

as Van Hoyweghen observes, apart from villages created in Kibungo and other areas in north-western Rwanda, nearly all other settlements are inhabited by Tutsi (either genocide survivors or first caseload refugees).[72] Local authorities, in many cases, do not recognise the Hutu as victims of the war and genocide. Confounding the problem is that Tutsi genocide survivors claim they are susceptible to militia attacks because they reside in clearly identifiable 'Tutsi' villages. *Imidugudu*, therefore, has contributed to social tensions in some areas of Rwanda.

Since the UNHCR withdrew support of *Imidugudu*, the programme is threatened with a lack of sufficient financial support. It is clear that the government cannot pursue the programme without the assistance of the UNHCR or other international donors. It therefore remains to be seen the extent to which the villagisation programme will be implemented.

Turning now to the issue of law reform.

The preceding pages have made the point that land is the most important productive asset for most Rwandans. Yet Rwanda has a legacy of disputed land rights, arising partly from the lack of legal status for land title and partly from the return of refugees whose land has been redistributed to other occupants. Hence the provision of security and the resolution of land disputes are important objectives of the current government.[73] In line with objectives outlined in Rwanda's poverty reduction strategy, the government is acting to reduce conflicts over land, for example, through draft Land Policy and Land Law.

The Draft Land Policy includes the following provisions:

- All Rwandans enjoy the same rights of access to land, implying no ethnic or gender discrimination.
- All land should be registered in title that can be traded, except where doing so would fragment the land into plots that are less than one hectare in size.
- Land use should be optimal. Households will be encouraged to consolidate plots to ensure that each holding is not less than one hectare; there will also be a maximum size of 50 hectares for any individual landowner. Families will be required to hold land in common should fragmenting the land reduce the size of the plot to less than one hectare.
- Land administration will be based on a reformed cadastral system and be subject to further consideration.
- The rights of occupants of urban land will be recognised on condition that they conform to established rules.

The Draft Land Law specifies that:

- Persons occupying less than two hectares, and those with customary holdings of between two and 30 hectares, where the owner has a project and a development plan, will be recognised as the rightful owners.

- Transfer of title deeds requires prior consent of all family members.
- A land tax will be imposed.
- Undeveloped land reverts to the state's private domain after a period of three years.
- Holders of *ubukonde* land (originally distributed by the clan head), known as *abagererwa*, will have the same rights as other customary owners.

The objective of the draft policy and law is to improve land management while conferring security on the existing occupants of the land. It will be important to devise cost-effective methods of resolving disputes at a community level. It will also be essential that smallholders occupying plots that are less than one hectare are not displaced on the basis of the Land Policy. The process of allocating title will require inclusive local level participation. It may be both more cost effective and transparent to conduct a survey to determine land titles in each community on a particular occasion, rather than to allow individuals to apply opportunistically to register particular pieces of land. Traditionally, local land disputes were resolved by the local *gacaca*, or court. Many households hold several plots at different altitudes both as an insurance mechanism and to spread their labour inputs evenly over different times of the agricultural calendar. As non-agricultural incomes rise, it should be possible for households to diversify their income sources and therefore reduce their dependence on land.

The poverty reduction strategy for Rwanda outlines a number of actions to ensure that legal and policy reforms for land are effectively implemented, including:[74]

- cabinet and parliament review of the draft land policy and land law;
- awareness raising and other civic programmes to educate the population about their land and resource rights;
- establishing a cost-effective system to administer land and resource rights; and
- creating mechanisms to settle disputes over land at the local level.

The measures undertaken by the Rwandan government to ensure tenure security and ownership rights are a crucial step to redressing the role of land in the conflict in Rwanda. Importantly, however, current reforms undertaken by the government do not redistribute additional land to poor peasants. The overall impact of the policy and legal reforms, therefore, may be limited as long as redistribution is omitted.

Conclusion

Land is not the root cause of the Rwandan conflict. Various factors contributed to the onset and continuation of conflict in Rwanda. The role of land, however, is critical to understanding conflict dynamics in Rwanda. Land scarcity in Rwanda is both a function of population pressure and the unequal distribution of land. Control of the state by elite groups has facilitated their domination of land ownership. This has aggravated land scarcity for the rural poor by concentrating ownership of land with a minority.

Prior to the genocide, land was an important factor underlying the formation of violent conflict between the ruling elite and armed opposition. The land issue continues to complicate peace-building and national reconciliation in the post-genocide period. The government is confronted with an enormous responsibility to settle thousands of returning refugees and secure the land and resource rights of the rural poor, who are the majority of the population. At the same time the government, with the support of the international community, is seeking ways to reduce dependence on subsistence production that depends on access to scarce land. Dependence on access to scarce land has reinforced the vulnerability of the rural poor, Hutu and Tutsi alike.

International policy in support of peace building in Rwanda must be based on a more careful assessment and scrupulous investigation of the dynamics underlying conflict in Rwanda. As this study shows, by emphasising the ethnic parameters of the conflict over other important variables, including land, past international interventions in Rwanda were, at least to some degree, misguided. This was evident in the Arusha peace process, which emphasised power sharing, the composition of the armed forces and elections in order to diffuse ethnic tension, but did not redress other important structural factors at play. The Arusha Accords, importantly, called for the return of all refugees. However, the peace process neglected to understand the explanations given by the government and did not attempt to overcome these by assisting resettlement in terms of creating employment and helping to resolve competing claims to land and resources. Given the highly charged environment in Rwanda at the time, it is clear that any return of refugees required careful planning and significant international involvement at all levels.

A further important finding is the need for inclusive peace-building approaches. The extremist Hutu party, CDR, did not participate in the Arusha peace process, and was later influential in undoing the Arusha Accords. Similarly, some rebel groups fighting in the neighbouring DRC were excluded from the Lusaka framework for peace building. It is important that all armed factions participate in peace building. This may require ongoing dialogue to address the hesitancy of some parties, and to reassure different factions of the necessity and long-term dividends of peace. Furthermore, governments must be open to negotiation with different armed groups during

peace dialogues in order to identify a lasting solution to the conflict for all sides. It is also imperative that conflict prevention and management strategies for Rwanda recognise the linkages between Rwanda and other countries forming part of the central Africa conflict. Conflict and peace in Rwanda, DRC, Burundi and Uganda are intimately related. Conflict in these different countries centres on similar actors, interests and issues. Conflict managers should devise a comprehensive framework that seeks to build peace across borders and to minimise the impact of conflict in one country on neighbouring countries.

Many reforms will be necessary to effectively manage the sources of conflict in Rwanda. The government has the responsibility to strengthen the security of rural livelihoods, and to create employment for thousands of unemployed youth. Specifically, a new environmental policy is required to enhance the ecological capital upon which rural livelihoods are based, as well as to devise ways of generating greater goods and services from these.

Improving overall land use should be a key priority of the Rwandan government and international development agencies operating in the country. This will imply a scrupulous assessment of existing uses and devising a new national land use plan to increase the provision of ecological goods and services for the poorest. The introduction of a broader range of agricultural methods through the transfer of new technologies that are suited to Rwanda's ecological vagaries may be a necessary element of improving overall land use.

It highly probable that Rwanda's agriculture will reach its natural limit in the near future, making it necessary to diversify the country's overall production methods and income-generating opportunities. Government initiatives should reduce dependence on the land, while offering real opportunities for generating income in other sectors.

This study points strongly to the unequal distribution of scarce land as a significant factor contributing to the civil war and genocide in Rwanda. Substantive agrarian reforms that would lead to a more equitable distribution of land have been delayed for more than 30 years by the government. The government, however, has a moral duty and responsibility to redress gross inequalities in land ownership, and to improve livelihoods for the rural poor. Land redistribution to benefit the poorest will be a necessary part of any strategy for meeting these responsibilities. Doing so will reduce powerful tensions related to access to and control of land, and contribute to the process of national reconciliation and peace building.

Finally, land issues must be integrated into the training of conflict prevention and management specialists in Rwanda. Non-governmental organisations need to refocus their emphasis on environmental or ecological issues to address issues of land and resource rights. This may help to shift the emphasis from preventing perceived degradation of the environment to advocating for and defending the rights of the landless and the rural poor. There is no

doubt that dealing with the issue of land and resource rights in a considered and open way at the level of policy making to the level of local level dispute resolution will have enduring benefits for peace building in Rwanda.

Endnotes

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35 Ibid, p 242.
36 They were manipulated and used by extremist Hutu politicians to fulfil their desire of creating an exclusive Hutu state, which would ensure their political survival and holding of power.
37 Prunier, op cit, p 142.
38 United Nations, op cit, p 14.
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40 See Homer-Dixon et al, op cit, p 2.
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42 Prunier, op cit, p 62.
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47 The USA, for example, which had opposed UNAMIR has been one of the biggest donors to the relief operations. See, e.g, Van Hoyweghen, op cit, p 18.
48 These local NGOs include ACORD (Agency for Cooperation and Development) Ligue des Droits de la Resource dans les Region des Grands Lacs (LDGL), Conseil de Concentration des Organisations d'Appui Aux Initiatives de Base (CCOAIB), Reseau des Femmes, and Haguruka.

49 Homer-Dixon et al, op cit, p 270.
50 Demand-induced scarcity results from population pressure whereas supply-induced scarcity results from the degradation of resources.
51 91% of total wood consumption in Rwanda was for fuel wood. See Homer-Dixon, op cit.
52 Ibid, p 3.
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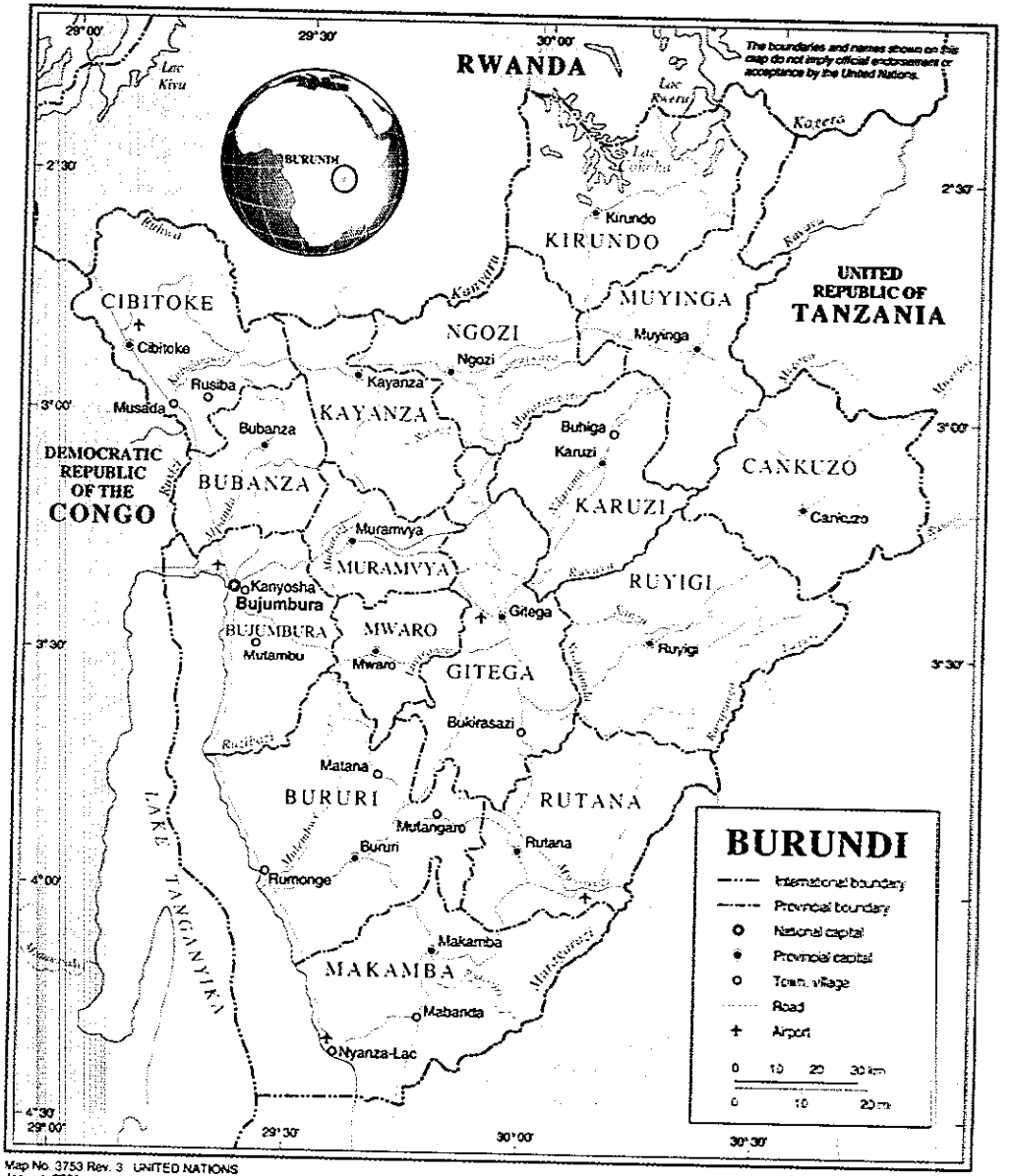
RWANDA
UNITED REPUBLIC OF TANZANIA
DEMOCRATIC REPUBLIC OF THE CONGO
BURUNDI
CIBITOKE
Cibitoke
Rusiba
Musada
Bubanza
BUBANZA
KAYANZA
Kayanza
NGOZI
Ngozi
KIRUNDO
Kirundo
MUYINGA
Muyinga
CANKUZO
Cankuzo
KARUZI
Karuzi
Buhiga
RUYIGI
Ruyigi
MURAMVYA
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Bujumbura
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Mutambu
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GITEGA
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BURURI
Matana
Mutangaro
Bururi
Rumonge
RUTANA
Rutana
MAKAMBA
Makamba
Mabanda
Nyanza-Lac
LAKE TANGANYIKA
Lac Kivu
Lac Rweru
Lac Cohoha
Kagera
Ruhwa
Kanyaru
Ruvubu
Mwaru
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Chapter Three

Conflict and Coffee in Burundi

Johnstone Summit Oketch and Tara Polzer[1]

Introduction

The small central African country of Burundi has repeatedly been wracked by conflict since its independence in 1962. Since 1993 a fully-fledged civil war has raged, with enormous human and economic cost. Years of regional and international attempts to bring peace have made only slow progress. Tragically, the most promising episodes of Burundi's history in terms of democratisation and reform have repeatedly been turned into the triggers for the most violent and deadly confrontations.

This study re-examines the conflict in Burundi and the conflict management initiatives and processes aimed at mitigating it in the light of the contribution of environmental and ecological factors in causing violence. There are very few studies of the Burundian conflict which take these factors into account. At a time when the Arusha peace process is at a crossroad, with the start of all-party talks in Tanzania in August 2002, this perspective may contribute to a deeper understanding of the underlying causes of the conflict, especially those that have led to its repeated re-emergence over the past decades. We also suggest several possible approaches to peace building that aim to address the structural ecological conflicts that we identify.

The *leitmotiv* connecting the chapters is that the conflict, like many on the continent of Africa, is primarily about elite struggles for control of the state. Many researchers on Burundi[2] have noted the central importance of competition for control over the state. The state, and the predatory activities of the elite who control it, as we argue, is both the underlying impetus for violent conflict, and the connecting link between the exploitation and degradation of Burundi's natural resources and the conflict. The small size of the private sector in many African countries has ensured that the state is virtually the sole provider of employment and sole agent of economic redistribution. Control of the state is therefore a powerful political asset which brings with it the power to decide over the allocation of all the country's resources. Harold Laswell's adage that politics is a question of *who gets what where and when* applies in a very literal way in Burundi.[3] This study, in short, is concerned with the role that the exploitation and control over the country's agricultural produce played in fuelling the conflict. Burundi's political economy is logically central to the study's analysis.

Burundi's prima facie environmental problem is the extreme scarcity of land in this small country where the majority of the population lives off subsistence agriculture. There are many kinds of scarcity, which for a rural, subsistence population can be life threatening. But there is also an abundance of resources. We argue, therefore, that the immediate problem of scarcity of resources like land, and the seemingly immediate competition for such resources among groups in the community, is not a direct cause of the widespread violence that has wracked Burundi for the last 35 years. The violence in which Tutsis have killed Hutus and Hutus, Tutsis is a result of elite competition for control over the state.

Belligerents and analysts alike frame the conflict in the context of ethnicity. The reality, however, presents a more complex and seemingly intractable picture of competition for resources, competing urban and rural development and investment policy priorities and industrial and agricultural demands. Furthermore, there is a glaring schism between the country's southern and northern regions, with far-reaching implications for the conflict. The ethnic mask has served to draw attention away from the concrete structural conflict of interests between the elite and the rural majority.

Even though the overt conflict does not reflect the structure of competition for resources, the character of Burundi's natural resources nonetheless directly shapes how the state functions and why it resorts to violence. The small base of most African economies, often monocultural like Burundi, their disproportionate agrarian orientation, and their dependence on cash crops have conspired with the legacy of colonial economic structures to make many African countries extremely economically vulnerable and unstable. In Burundi, more than 80% of foreign exchange receipts come from one cash crop alone, *coffee*. This has ensured that the country's economic health is held to ransom by the vagaries of international market forces.

The vulnerability of Burundi's economy and ecology has been exacerbated by the predatory nature of the state, proverbially biting the hand that feeds it. Neglect of the agricultural sector and the hinterland have ensured that over time primary producers are discouraged, land is under increasing strain of degradation, and hunger looms.

Burundi's, and indeed the entire Great Lakes region's, future is contingent on the peaceful coexistence of their inhabitants. Although it must be clearly stated that the Hutu majority has suffered the most from Tutsi elite exclusion and repression, we here note that there is extreme structural violence against *all* Burundians who are not members of the narrow urban ruling elite, because they suffer poverty, illiteracy and ill health from the distorting effects of the predatory policies of the elite-controlled state. The challenge, then, is to redress the structural bases of the conflicts in the region, for example the coffee sub-sector in Burundi.

Explanations of conflict based on environmental and economic factors have had a renaissance in recent years, reflected in the first chapter of this book. We will briefly outline below to what extent some of these theories are appropriate to Burundi's case. Of course, a focus on ecological causes is only one possible angle from which to understand the conflict, and we do not wish to postulate a new monocausal analysis. In the text, other factors, such as the extremely powerful mutual fear of Hutus and Tutsis of genocide, are noted, but are not treated in detail.

Jeffrey Herbst[4] makes the important point that too strong an analytical and policy focus on the economic/resource-based aspects of a conflict (for example, arguing for the policy of export diversification) detracts attention from the fact that:

- there are strong ideological or grievance-based factors (fear of mutual genocide in Burundi); and
- that the conflicts are still centrally military. For example, the violence could be ended quickly by increasing the power of one side so that it can defeat the other (as was long the case when the army could brutally repress the rebel groups in a very short time).

Moreover the international community does not want to take sides, and so part of the attraction of drawing attention to economic agendas is that the resulting policy recommendations do not require the international community to get involved "in the messy business of promoting fighting, much less the defeat of one side".[5] In spite of this caveat, it is clear that a position on ecological issues in such a context is extremely political, because it concerns control over wealth and the political influence this brings. It is not depoliticising violence and conflict, but rather trying to uncover the structural motivations and incentives behind the political rhetoric of ethnicity, which has also had the effect of giving international actors an excuse for not taking a committed and preventative stand in supporting peace building.

Many of the theories concerning the role of environmental factors in the outbreak and continuation of violent conflict that have been put forward in recent years do not apply to Burundi. There has been an active academic debate about the 'new wars' whose protagonists are more interested in continued violence in order to gain and retain control over mineral wealth than in winning for a political end. The central argument of these theories is that armed groups, both government and rebels, can finance their arms and armies through exploiting natural resources, and that retaining control over these resources becomes a self-perpetuating reason for local commanders to fight. These ideas focus mainly on easily extractable and exploitable natural resources, which are found in easily localised and controlled sites, such as gold, diamonds, other minerals (such as coltan in the DRC), oil or timber.

Burundi does not have significant amounts of such resources. Burundi's main source of natural wealth is coffee. The process of extracting, processing and selling coffee is not conducive to the same patterns of violent control and smuggling as diamonds or timber. While the exploitation of the coffee industry and agricultural production in general has indeed been central in funding the state's capacity to carry out violence, the rebel groups have not financed themselves in this way. Finally, the control over Burundi's natural resources has not suddenly become an end in itself (in theoretical contrast to a political aim) through the dynamics of the conflict, but is rather an integral part of the political constitution of the state, before, during and after outbreaks of violence.

The broader expression of the resource extraction hypothesis, that is the debate around the political economy of violence[6] does apply to Burundi. This approach to understanding conflicts postulates that while wars may start with political aims, the motivation of the fighting groups may change during the process of the war to be economically oriented, that is they get used to looting and smuggling, or to having access to more state military spending. There is a strong element of this in Burundi, which makes a peace process very difficult. The Tutsi-dominated army is accustomed to great wealth and political power, which they justify through the Hutu threat. The rebel groups were long funded by external actors with an interest in continued violence, such as the DRC, and have strong smuggling networks in the whole region. This is an important dynamic, but not directly connected to the environment.

Collier and Hoeffler's[7] recent statistical work on the determining factors of civil war shows that dependency on the export of primary commodities, that is environmental products, is the "most powerful risk factor" for the outbreak of conflict, compared to all the other factors they tested. This dependency is certainly strong in Burundi. However, Collier[8] places this statistical finding within a theoretical context that is not applicable to Burundi. He argues that what matters is not *why* rebel groups start a violent rebellion, but rather *how* they manage to finance themselves, and then postulates that a high level of primary commodity exports is likely to lead to conflict because primary commodities are easy loot. As noted above, however, the rebel movements in Burundi are not largely financed through looting coffee or other products of Burundian production – they are financed by external interests and the diaspora. Where the perspective of this report coincides with Collier is in noting the predatory behaviour of the state in financing its own capacities for violence through primary commodity exploitation.[9] However, Collier only mentions the state actor very briefly, focusing otherwise only on the rebel groups. In the case of Burundi, such a one-sided actor analysis is fatal.

As a closing note on the "greed versus grievance" debate,[10] of which Collier is an extreme supporter of the thesis that greed is the only relevant factor in civil war, this chapter argues that it is false to make a categorical distinction between the economic and the political. Greed is a

highly political attitude, especially if expressed by a state machinery and elite class, since it undermines the equitable and sustainable distribution and use of natural, social and political resources, thereby stunting the life chances of millions of citizens. This approach specifically rejects what Twose and Fairhead call the 'greenwar' thesis.[11] This thesis postulates a simplified and inevitable progression from environmental degradation (including land scarcity, land degradation and desertification, etc.) to poverty and conflict. Twose summarises it thus:

"The cycle is repetitive and truly vicious. Environmental impoverishment, increasing conflict over resources, marginalisation of rural people, social and political unrest, displacement and uncontrolled migration lead to further conflict and the outbreak of wars within and between states. When hostilities grow into organised warfare, the environment inevitably undergoes further degradation. The insidious pattern comes full cycle, as a peacetime population and government struggle to cope with a land left environmentally bankrupt. The seeds are sown for further tension and conflict."[12]

In a similar vein to the 'greenwar' thesis, Homer-Dixon[13] argue that environmental stress and competition over scarce resources may be central factors leading to the outbreak of violence. This includes where the rural poor are competing to survive in the face of environmental scarcity and degradation, but also where more affluent and armed groups compete to capture scarce resources. Uvin has applied this concept to Burundi, noting competition for land as a contributing factor to the violent conflict and genocide. Our analysis does not find that this approach applies to Burundi. Where there is violent appropriation of land, this takes place in the context of much wider structural violence, whose main target is the state, not the land itself.

Fairhead criticises this 'greenwar' position very effectively and suggests an alternative to the focus on scarcity and environmental depletion, namely the focus on resource value and wealth. An important element that such an approach allows us to see is "how the relationship between environmental degradation and conflict is linked to the international economy.... This is important, as the major destinations for the resources which, it can be argued, have been fuelling conflicts in Africa tend to be the industrialised nations."[14] It is for this reason that this chapter analyses the coffee industry to show how local agricultural production and resource exploitation is linked to state predation and finally to the international coffee market and its highly destabilising price swings.

A final and important point that we share with Fairhead is that we aim to 'put environment in its place'. The strategy taken is to focus on the many political and economic causes [of the conflict in Burundi] and then try to see where environmental phenomena fit in, rather than looking at environmental phenomena and trying to see how they might contribute (or not) to understanding [the conflict.]"[15]

Background to the Conflict

Competition for the state, in the Burundian context, is synonymous with competition for control over Burundi's natural resources. Burundi's ecological and environmental resources impact on the conflict via the predatory state. This occurs at three levels. First, as with any country whose economy is based overwhelmingly on agriculture, the state derives its income largely from the processing and sale of agricultural produce. It distributes the profits from these resources to create a political client base, and it uses the revenue to protect and perpetuate the predatory system, very often through violence. This is the institutional processing and sale level. The second level, closely connected to this first level, is the local production level, at which the producers of Burundi's resources, especially those mainly Hutu rural farmers who produce cash crops, are exploited and repressed, creating a grievance which contributes to the *cycles of violence*. Finally, the third level is the global market; it concerns the volatile international market for Burundi's resources, mainly coffee, which puts pressure on the resources of the political-military elite.

When speaking of competition for control over the state, we are speaking of competition between urban elites. Rural populations, however, are most directly affected by natural resource questions, especially, in the case of Burundi, by the lack of sufficient land to sustain a growing peasant population living off subsistence agriculture. The average amount of arable land per peasant family is less than one hectare and this is rapidly decreasing owing to population growth, inheritance rights splitting already commercially non-viable farms into even smaller units, and land degradation. This element of natural resource pressure does feed into the way in which violence is carried out. People are known to have been killed so that their neighbours could take over their property. However, we argue that the scarcity of land alone would not lead to violence of neighbour against neighbour in Burundi were it not for the exclusion of the majority from all political and alternative economic opportunity and for the ideology of ethnic hatred and fear. Therefore we will primarily look at how issues of control over natural resources, via the state, affect how elites start violence.

The capture of the state by a small ethno-regional faction, and the concomitant exclusion of the majority of Burundians – most Hutu, but also most Tutsi – from political and economic opportunity has created the structural basis for conflict in the country. Of course there is a complex web of factors that have contributed to the outbreak of actual violence and to the shape that it has taken. These include proximate historical factors such as triggering events and regional and international influences, as well as factors endogenous to a captured state: the lack of legitimate and effective domestic conflict resolution mechanisms, and the role which has accrued to ethnicity over decades of colonialism and post-colonial conflict.

Pre-colonial Burundi

There is no unanimity of views on the circumstances of Burundi's pre-colonial social order, including the nature of the distinction between Tutsi and Hutu, the nature of the political system, and the consequential impact of colonial rule. In addition to the difficulty of researching oral societies, and the extreme distortions of most missionary and colonial reports, the main obstacle to a consensus understanding today is the extreme contemporary political importance of any interpretation.[16] A comment made by David Horowitz about South Africa applies to Burundi as well: "There is the conflict itself, and there is the meta-conflict – the conflict about the nature of the conflict."[17] Various commentators outside as well as within Burundi also note that laying disproportionate responsibility at the door of the 'colonial legacy' has been used by some Tutsi politicians for political mileage and vindication[18]. Despite these justified calls for caution, it is clear that colonialism fundamentally changed Burundian society from its pre-colonial condition, and that many of the structures that were put in place then, now continue to create conflict. These include a predatory state, socio-economic and political exclusion, and rigid ethnic identities.

Before analysing the colonial impact, some brief comments about pre-colonial Burundi are necessary. Burundi's social system was bifurcated, not along ethnic lines but between royals and commoners: the *ganwa*-Tutsi on one hand and the non-royal Tutsi and the Hutu on the other. Twa were treated as social outcasts then as they are now. The distinction between Hutu and Tutsi was one of a stratified division of labour; some have likened it to 'classes'. Hutus were predominantly agriculturalists and provided the bulk of labour and Tutsi were pastoralists and warriors. Hutus could 'become' Tutsi by achieving a certain level of wealth (in cattle) or influence. Without romanticising this division of labour, which was based on hierarchy and inequality, there was nevertheless a relationship of mutual dependence and exchange. Furthermore, and contrary to widespread belief, Hutus, although not controlling all levers of power, enjoyed significant positions of responsibility and authority and were accorded property rights. Access to political and economic power, that is access to land and cattle, hinged around the patronage of the royal court, and was mediated through kinship relations and shifting kinship alliances[19]. In sum, pre-colonial Burundi was characterised by a highly complex social and political system based on the clan, heterogeneous and flexible ethnic group organisation, competition for access to land and cattle via the king, and a traditional mechanism of conflict management, the *Bashingantahe*, based on respect for clan elders[20].

Colonial rule

The elements of group identity, political structure and economy noted above were all radically transformed under colonialism. Colonial rule was first imposed on the Burundian kingdom from 1888 to 1915 by the Germans, who had to give up their colonial territories after the end of the First World War through the provisions of the Versailles Treaty. In 1919, Belgium assumed possession of Rwanda-Urundi as trust territories of the League of Nations, which was formally accepted by the Belgian parliament in October 1924. Belgium held the territories until their independence in 1962.[21]

The colonial administrations had five major effects on Burundian society, all of which became important elements of later conflicts:

1. The disenfranchisement of Hutus in relation to the fledgling state was increased through the administrative reforms which shaped the structure of the state.
2. The ethnic differential of opportunity was cemented through opening education mainly to Tutsi and *ganwa*.
3. Ethnic identities became fixed and politicised.
4. The economy began to be structured for primary product export.
5. The state administration, rather than the royal court, became the central locus of patronage and source of wealth for the elite.

Through the choice of indirect rule as administrative model, the Germans and later the Belgians entrenched the position of the Tutsi aristocratic class, the *ganwa*, who held virtually all positions of leadership and the attendant access to political and socio-economic advancement. Administrative centralisation introduced in the 1930s under Belgian rule further strengthened the Tutsi generally and the *ganwa*-Tutsi particularly, while eroding traditional Hutu claims to power. The progressive decimation of the Hutu ranks in the administration, and their removal from political, social and traditional roles, led to a minuscule Hutu elite by the time of independence in 1962. Education opportunities, while in theory open to all, were for the most part open only to the children of the Tutsi aristocracy with the result of reinforcing their predominant position in local colonial administrative positions.[22]

In privileging the aristocratic Tutsi, the colonial powers did not only support the hierarchical system which already existed in Burundian society – they qualitatively changed the relationship between the social groupings as well as their self-perceptions. From a system of mutual dependence and to some extent flexible identities, colonialism concretised and rigidified ethnic identity and placed Tutsi and Hutu in relationship to each other as rulers and subjects. The Belgians, Reyntjens notes, turned ethnic groups into politically relevant categories.[23]

The concretisation of political, social and economic categories of ethnic identity was underpinned on the one hand by the so-called 'hermitic myth' and on the other by the introduction of identity cards. The 'hermitic myth', which was introduced by colonial anthropologists, claimed that Tutsis were 'natural rulers' compared to Hutus, based on the supposed origin of Tutsi in northern Africa, and the portrayal of the 'indigenous' Hutu as "disposed to opposition and disobedience" (see Lemarchand[24] for an expose of the 'hermitic myth'). Identity cards bearing the holder's ethnicity also played a highly significant role in destroying the flexibility of ethnic ascription. It was the ethnic classification on a holder's identity card that determined liability to forced labour for the Hutu and admissions to the administrative school for the Tutsi at Astrida.[25]

If the Belgians, as Reyntjens charitably observes, "unwittingly initialled changes [in ethnic identities], not realising their potential for conflict",[26] the restructuring of the economy and the introduction of a predatory, rent-seeking and extractive state model were clearly not unwitting. Before colonialism, Burundi had an economy based on subsistence and the transfer of agricultural produce and cattle within a vertical social and political system of patronage. The self-sustaining cycle of economic and political exchange served the needs of its participants. The colonial administrations replaced this with an economy completely oriented toward fulfilling external needs. Export crops such as coffee and tea for Belgian consumption and sale displaced subsistence food cropping and animal husbandry, and the intensification of commercial food crop production served to free up provisions and labour to support the mining sector in the neighbouring Belgian colony, the Congo. Therefore, Burundi's economy became doubly extroverted and doubly dependent on Belgium, directly and via the giant neighbouring country, into whose currency sphere and trading system Burundi had been integrated.[27]

A centralised and extroverted economy has three effects. First, it creates opportunities for rent seeking for those who control the trade of export goods, and second it disengages the economy from the fulfilment of domestic development objectives. This is because the economy is driven by the twin principles of meeting external rather than domestic demands, and maximising rents for the domestic elite. Third, and also connected to the above phenomena, is the incentive to focus on maximum extraction rather than sustainable development of and reinvestment in primary resources. All three elements remain characteristic of Burundi's current economy and the way it is managed by the predatory and rent-seeking elite who control the state apparatus.

Under the colonial system, especially the Belgians, the state as an administrative body was fundamentally geared toward facilitating the extraction of wealth from the territory it oversaw, while controlling the population in a way to support this extraction and repress opposition. This function of the state stands in contrast to the pre-colonial kingdom, in which patronage networks

were the structuring principle of political and economic power, but where wealth circulated within the system and there was a measure of mutual benefit between rulers and ruled. The colonial state was set up to divide the rulers from the ruled, so as to encourage arbitrary rather than accountable rule. As in so many African states, this fundamental state structure was not changed with independence in Burundi, in spite of revolutionary nationalist rhetoric, but was merely taken over by a new set of elite and used to further their own purposes.[28]

Post-independence

Since independence in 1962, Burundi has experienced four episodes of prolonged violence – in 1965, 1972, 1988, and 1993 to date. These are briefly outlined below. There are four recurring themes which weave through this account and which shape the form of violence in Burundi. First is the cyclical nature of the violence, in which each episode creates the conditions for the next. One of these conditions, born of the experience of violence itself, is the fear of ethnic genocide by both Hutus and Tutsis. The second underlying theme, concerning not only the fact but also the cause of violence, is the fundamental and long-term repression and exploitation of the majority by a minority, which is stronger due to control over a centralised state administration and especially the army. This is not a conflict of equals. Third, there are various external and internal triggering factors that serve to spark off violence at a particular time. These might be political or economic, as will be discussed below. Fourth, impunity for the killing of civilians, especially by the army, has undermined any cross-community respect for the rule of law.

Ngaruku and Nkurunziza[29] call post-independence Burundi a 'trap' in that each new episode of violence has its roots in the previous one. They explain the structure and nature of conflict in Burundi using a predation model, which is built around three elements. Firstly, the bureaucracy acts as a predator on the rents of the state machinery; secondly, the victims of predation rebel and thirdly, the army acts as part of the elite bureaucracy to repress and deter further rebellion, that is to protect the interests of the bureaucracy and their control over the state. This model will also be followed here, adding that, in addition to predation, the exclusion of Hutus from positions of power is a cause of rebellion.

Another image reflecting the cyclical nature of violence in Burundi shows that violence breaks out at certain intervals if there has been no resolution of the underlying conflict causes in the interim. This image reminds us to focus on the continued structural violence, rather than only on the episodic outbreaks of violence. We will see that the underlying causes of predation, repression and impunity for killing have often increased rather than decreased over time and between violent episodes.

The first three outbreaks of violence in 1965, 1972 and 1988 were characterised by the cycle of predation, rebellion and excessive repression, as identified by Ngaruko and Nkurunziza. The conflict since 1993 has broken this mould to some extent, since the army has for the first time not been able to quickly quell the rebellion. The conflict is still ongoing after eight years, and has developed significantly different dynamics from previous times of violence, predominantly because of the rise of armed rebel groups, the influence of regional factors such as the conflict in neighbouring Congo/Zaire,[30] and the various domestic and international attempts to bring peace back to the country.

1961–1966

The period from just before independence until the abolition of the monarchy in 1966 was characterised by a swing between hope for national unity and peace, and the start of the trends of exclusion and violence which would continue to shape Burundi's post-independence history. The first cycle of exclusion of Hutus from power by a Tutsi elite, rebellion by Hutus, and extreme repression against educated and high-ranking Hutus by the Tutsi-controlled government can be clearly evident in these five years.

Ethnic strife was by no means inevitable in Burundi. In preparation for independence, Burundians rallied behind a party of national unity, which included both Tutsis and Hutus in its leadership. In the 1961 legislative elections, the *Union pour le Progres National* (Union for National Progress *or* UPRONA) won a landslide electoral victory under the leadership of charismatic and moderate Prince Rwagasore. This hope for peaceful coexistence and nation building was, however, almost immediately shattered by the assassination of the prince by extremist Tutsis only a few months after the elections.[31] This assassination of a leading moderate by extremists was only the tip of the iceberg of harassment and assassination of other UPRONA leaders and the increasing exclusion of Hutus from positions of power.[32]

Since the *mwami* (king) still had formal power, the political manoeuvring pitted the entrenched royalist Tutsi against the small Hutu elite (since Tutsi of the royal line had been privileged and Hutus generally excluded under colonial education and administration). The mistreatment of Hutu in public positions culminated in the refusal of the *mwami* to allow Hutu politicians to form a government although they had won a majority in the May 1965 elections. This cumulative exclusion led to an attempted *coup d'etat* by Hutu politicians, who were subsequently executed, along with other Hutu leaders. In response, around 500 innocent Tutsi civilians were massacred by Hutus in Muramvya province. This resulted in massive army repression against the Hutu across the entire country.

For the first time, in a pattern that was to be repeated again and again, government repression targeted not only those Hutu responsible for the coup

attempt or for the killing of Tutsi civilians, but most Hutu in public positions, as well as educated, influential and wealthy Hutu in general. Many who were not killed fled, leading to a vacuum of Hutu leadership potential in the country.

The effects of the violence on the distribution of power had far-reaching consequences for the political development of the country and for later conflict potential. The main power structures, including the army and what had become the de facto single party, UPRONA, came under the exclusive control of Tutsis. The extermination or expulsion of virtually all educated, influential and wealthy Hutu led to a concentration of power, wealth and influence in Tutsi hands, and prevented competition for power for at least a generation. This meant that this one group also had control over the national means of responding to future conflict – either through negotiated politics or through violent repression – consequently making all conflict resolution dependent on the interests of the ruling elite Tutsis.

1966–1972

The cycle of violence was again repeated in the years leading up to the killings in 1972. The 1972 violence was the most extreme of post-independence Burundi, and made the fear of genocide by both communities, which Tutsis had felt since the 1959 'revolution' in neighbouring Rwanda and which had already been prefigured for both Hutus and Tutsis in 1965, into a central causal factor of all future clashes. It "crystalised ethnic tensions in such a way that all subsequent crises have been ... [their] consequence."[33] Both communities see the killings as genocide against their own ethnic group and justify later violence against the other group on these grounds.

In this cycle of violence, the exclusion of Hutus from power was accompanied by the increasing centralisation of control in the hands of a small, regional Tutsi elite. The Tutsi-Hima clan, largely from the southern Bururi province, gained power over the previously pre-eminent Tutsi-Banyaruguru, traditionally allied with the royal court and therefore closest to power in the early 1960s monarchy.[34] This radical reorientation of identity group and regional power distribution culminated in the abolishment of the monarchy in 1966 after a coup by General Micombero, and the parallel 'Tutsification' of the army and 'Bururification' of the officer corps.[35] During the late 1960s, ever fewer Hutus and ever more Hima-Tutsi from Bururi had leading positions in central organs of power, including political, economic, educational, judicial and security sectors.[36] To a large extent, the 'banyabururi' remain the most powerful group in Burundi to this day, with consequent effects on the peace process.

One rarely noted characteristic of this extreme ethno-regional concentration of power is the level of personal connections. All three military regimes following the 1966 coup (Micombero 1966–1982, Bagaza 1982–1987, Buyoya

1987–1993) were headed by men from the same village in Bururi. Micombero and Buyoya are also related. As will be noted later, even most of the current rebel leaders are from Bururi province. This network of personal connections within the elite has affected the peace process.

The cycle of violence in 1972 was started by a Hutu rebellion in the south, supported by some Hutus in the army as well as Hutu militias in Tanzania and the then Zaire. The rebellion was seemingly sparked by the attempt of the king to return to Burundi from exile. He was then arrested and assassinated by the military government. Between 2 000 and 3 000 Tutsi civilians were killed during the rebellion.

In reaction to this massacre, the army and government security services struck against Hutus, not only in the south but all around the country. Once again, virtually all educated and influential Hutus in business, the civil service, the army, religion, education and any other field, were targeted. Conservative estimates say that 80 000 to 100 000 people were killed, while other estimates range between 150 000 and 200 000. Three hundred thousand Burundians, mainly Hutu, were prompted to flee to neighbouring countries. The United Nations has called this killing a "genocidal repression".[37]

As in 1965, but more so, the killing or expulsion of almost all Hutu with four years or more of high school education meant the end of Hutu participation in the public life of Burundi for a generation. Between 1972 and the late 1980s, Reyntjens calls the involvement of Hutu in powerful positions purely cosmetic co-optation.[38]

Similarly to 1965, the government and army killed with impunity. As Catherine Barnes points out: "The fact that the government was able to complete what the UN Genocide Convention refers to as 'genocide in part' without *any* sanction, domestic or international, had significant implications for the future development of both politics and Hutu-Tutsi relations in Burundi and the region as a whole."[39]

A further effect of the pogroms was that from 1972 onward there were large numbers of Burundi Hutu in refugee camps in Tanzania, Rwanda and the DRC. These refugees and the camps would play an important part in later Burundian conflicts as well as in other conflicts in the region.

1972–1993

This period includes a time of relative tranquillity after the 1972 massacres, another round of violence in 1988, followed by five years of wide-reaching political reform, culminating in the adoption of a new constitution in 1992, and multiparty elections and the election of a Hutu president in 1993. The significance of this period is that international pressure, coupled with an economically weakened government, brought about political reform. The tragedy of this period is that the reforms, which brought great hope for a

democratic Burundi to many, triggered an extremist backlash, which led to the fighting that continues today.

During the years following the 1972 massacres the underlying causes of the conflict were strengthened rather than reduced. The military regimes of Micombero and Bagaza continued to consolidate Tutsi political gains and Hima-Tutsi power in particular, perpetuating the exclusion of Hutus from the affairs of the country. During the repressive years of Bagaza's reign, the first organised Hutu refugee rebel group began to be more visible, including *Parti pour la Liberation du Peuple Hutu* (PALIPEHUTU), formed in the twilight years of the 1970s. There would emerge later, in the 1980s, *Front pour la Liberation National* (FROLINA).

There were, in addition, some significant economic changes, which affected Burundi's politics. On the one hand, the Bururi lobby in power not only consolidated its political position, but also its powers of patronage. There was a significant shift of state investment from sectors with little rent-seeking capacity, primarily agriculture, to those with high predatory potential, that is state-owned companies, and industry and services in general.[40] This process will be described in more detail below. On the other hand, the early to mid-1980s saw international sources of economic pressure affect the regime. Increased international attention to the human rights violations of the Bagaza regime made international donors threaten to withhold development aid. Since in the 1980s this aid paid for up to 50% of government expenditure in the context of extreme indebtedness, this was a major threat to the income of the regime. In addition, world coffee prices collapsed in the mid-1980s, undermining further the foreign exchange revenue of the government. Finally, in 1986, the International Monetary Fund (IMF) and the World Bank imposed a structural adjustment programme on the government, including the demand to reduce military spending.

The decreasing popularity of Bagaza's regime, not least because of the economic pressures facing the urban Tutsi elite, led to a military coup in 1987 led by Major Pierre Buyoya. Less than a year after the coup violence erupted anew, this time in the northern communities of Ntega and Marangara bordering Rwanda.

The violence took the established pattern: pre-emptive, limited Tutsi violence against Hutu "to keep them in their place", a widespread and intense Hutu reaction to the provocation by the security forces, and a disproportionately harsh "restoration of normalcy" by those security forces.[41] The violence may have been sparked, among other factors, by government action to curb coffee smuggling on the Rwandan border. The level of fear and mistrust among ethnic groups by this time is shown by the fact that any government action could be interpreted by Hutus as the beginning of ethnic attacks. "Isolated provocation by individual Tutsi immediately took on ominous proportions ... Rumour became the immediate catalyst for violence," notes Lemarchand, emphasising the importance of fear as a motivating factor for killing.[42] The

number of deaths attributed to the two groups in these cyclical waves of violence has been a potent propaganda tool used by the ethnic elite. Some likely numbers are that some 500 Tutsi civilians were killed, while the army killed as many as 20 000 Hutus, driving a further 60 000 refugees into Rwanda.

What distinguishes the 1988 crisis from previous outbreaks of violence is that the army could not carry out its brutal repression without repercussions. After 1988, for the first time, there was external attention, criticism and pressure on the government to institute reform.

The Buyoya regime instituted political reforms toward democratisation and power sharing in response to this pressure.[43] They included the formation of a National Commission to Study the Question of National Unity, tasked with enquiring into the causes and perpetrators of the 1988 killings. This commission, as well as the reshuffled cabinet, the Economic and Social Council, the National Security Council and the Central Committee of UPRONA were balanced equally with Hutu and Tutsi members. A significant number of Hutu were given administrative positions in the institutions of state, and barriers to entrance into higher education for Hutus were reduced.

The commission's report was published in April 1989.[44] The report was subjected to intense public debate culminating in a Draft Charter of National Unity which paved the way for the Constitutional Commission, set up to write a new constitution predicated on the Charter of National Unity. The resulting document, the Constitution of Burundi, was overwhelmingly approved by a plebiscite in March 1992. The new constitution provided for free elections and a multiparty system. On 1 June 1993, Melchior Ndadaye, Hutu leader of the newly established *Front Democratique de Burundi* (FRODEBU), won 65% of the vote, compared to Buyoya's 32%, surprising many observers, including UPRONA. The subsequent legislative elections reaffirmed the magnitude of the political shift by giving FRODEBU 71.4% of the overall vote (with a 97.3% turnout of registered voters).[45]

The period in the early 1990s is generally acknowledged to have genuinely increased Hutu political participation. What was not challenged was the culture of impunity for past killing of civilians in general and in the army in particular. There was also no change in the Tutsi domination of the army, leaving the political minority with the monopoly of armed force.

Entrenched Tutsi elite felt threatened politically and economically – a recipe for violence in combination with continued control over the army. Politically, Tutsis could not veto constitutional changes by which they felt threatened, since neither UPRONA as a party, nor all Tutsi members of the Assembly (most in UPRONA, but also some in FRODEBU) commanded the blocking minority of 20%. Economically, the new government instituted and planned to institute significant changes in policy that would have undermined entrenched elite interests. Four particular reforms and effects of the change of regime are noteworthy:

- enabling small businessmen, mainly Hutu, to benefit from privatisation by reducing bid bonds by 80%;
- probing the conditions under which the right to refine and export gold had been granted to a Belgian firm, just before the elections (implying corrupt dealings);
- the return of Hutu refugees, some of whom had been living in exile since 1972, and their attempts to regain their land and property; and
- the replacement of many Tutsi civil servants with Hutus. (The direct and indirect economic and political significance of civil service positions is discussed further below.)

Extremist Tutsis reacted to this perceived mortal threat to their power and interests by assassinating President Ndadaye only a few months after his inauguration.[46]

1993 to the present

Ndadaye was assassinated on 21 October 1993 by members of the army in an attempted *coup d'etat*. Dupont notes the

> "... expression of discontent felt by Tutsi/Bahima in the army and political circle (who) disagreed totally with the reconciliation policies of clan member Buyoya and his successor Ndadaye. They wanted to put a stop to the planned inclusion of even more Hutu and other Tutsi groups in public administration, the schools, the armed forces and the judicial system, realising that this would inevitably lead to further erosion of Bahima monopoly of power".[47]

The assassination of the president, the speaker and deputy speaker of the National Assembly triggered the longest and bloodiest war in Burundian history. In the provinces, Hutus killed many thousands of Tutsis in reprisal for the death of their president, including Hutu members of UPRONA. The army as well as individual Tutsis retaliated against Hutus and FRODEBU members, especially potential leadership successors. The total estimated number of deaths from 1993 until today is 200 000 to 250 000.[48] There are seven important facets of the conflict since 1993:

1. The violence directly reflects the Tutsi elite's fear of losing control over the state through democratic reforms, and Hutu anger at having their chance at legitimate access so brutally denied.
2. The conflict distinguishes itself from earlier violence because the army did not succeed in repressing the Hutu rebellion within a few months – at the time of writing, the war has continued for over eight years.

3. The violence can truly be called a civil war, since Hutu rebel groups for the first time reached a significant level of organisation to fight back and to inflict significant casualties on the army.
4. Refugees from previous episodes of violence have played an important role in supporting and forming the rebel movements.
5. The regional element of the conflict has become stronger than in previous years, through the financing, training and arming of rebel groups by some neighbouring countries, and even their direct involvement in the internal war in the DRC.
6. An extreme humanitarian crisis exists in the country owing to internal displacement, regroupment camps, and the fall in agricultural production.
7. International pressure has been brought to bear on the government to come to the negotiating table with the rebels. Sanctions especially have had a major effect, if not always as intended.

When President Ndadaye was assassinated the army and the Tutsi elite did not immediately and overtly take the political lead in the country, but slowly manoeuvred into that position by 1996. While the democratically elected system formally remained in place, it was consistently undermined by UPRONA and the army. FRODEBU attempted to restore order and institutional governance in Burundi after the October 1993 coup attempt and the subsequent widespread violence. However, it was negotiating with partners who could rekindle violence at will, and who did so. The killing of Ndadaye's replacement Cyprien Ntaryamira (in a plane crash in April 1994, alongside Rwanda's president Juvenal Habyarimana) created a renewed power vacuum, and as the genocide in neighbouring Rwanda unfolded, Hutu influence in Burundi weakened. The power sharing agreement, Convention of Government, reached in October 1994 as an attempt to bring peace – in which UPRONA regained significant political power – undid both the 1992 constitution and the 1993 electoral process. In fact, in what Reyntjens calls a "creeping coup", all the institutions which had been introduced in democratic reforms since 1990 were frittered away, bringing the state to a standstill. Major Buyoya took this as justification for a coup in 1996, and Burundi has been under military control since.[49]

The daily insecurity and killings have continued in Burundi from 1993 to this day, although the number of killings have decreased since Buyoya's rise to power. For the first time, the army saw itself faced with an armed and organised rebel opponent, whereas before it had targeted mainly civilians. Three movements emerged as leading the Hutu rebellion, each with its own armed branch: the National Council for the Defence of Democracy (CNDD) and the Force pour la Defence de la Democratie (FDD); the Parti pour la Liberation du Peuple Hutu (Palipehutu) with the Front National de Liberation (FLN); and the Front de Liberation Nationale (FROLINA). Since their formation there have

been various further splits within these groups. Several Tutsi militias also formed during this time in support of the Burundian army, and the 'political' groups that arose from them play a role in the peace process today.

The rebel groups draw their strength from refugees from previous episodes of violence and the current conflict. Since 1993 some 700 000 people, mainly Hutu, have fled to neighbouring countries in addition to the refugees already living in camps since 1965 or 1972. The main recruitment camps are in the DRC and Tanzania. The living conditions in many camps are dismal, and refugees are discriminated against in their host countries. For many, violent conquest of their own country is seen as the only means of returning home. In addition to having their bases and recruitment camps in neighbouring countries, Hutu rebel groups have become embroiled in wider regional conflict dynamics, especially through their role in the conflict the DRC. Burundi's government, along with Rwanda and Uganda, has been supporting the rebel forces fighting the government in Kinshasa. In retribution, Kinshasa is reported to finance, train and arm Burundi Hutu rebels, especially the CNDD and FDD, in support of their fight against the Bujumbura government. These regional dynamics have a major impact on the peace process, as we will see below.

A further outcome of the ongoing conflict is the extreme humanitarian situation in Burundi. This is partly due to the general disruption caused by the violence, and partly due to the government policy of 'regroupment'. This policy involved forcing much of the rural, largely Hutu population into camps, with the argument of protecting them from rebel attacks and as a counter-insurgency measure to cut Hutu rebels off from their supply base in the country. At one point, up to 800 000 people were held in such camps, including virtually the entire rural population of Bujumbura rural province. There has been the constant and widespread threat of hunger since subsistence agriculture has been severely curtailed by the fact that farmers have been displaced from their fields or held in camps far from their land. The health conditions within the camps were also extremely bad, killing many from cholera. Most camps were closed by the end of 1998, because of international pressure, through the continued withholding of international financial aid and regional sanctions, but the threat of hunger remains.

International attention was focused on Burundi from 1993 through the withdrawal of international aid in reaction to the assassination of President Ndadaye. The most significant international action was the imposition of regional sanctions in the immediate aftermath of Major Buyoya's coup in 1996.

Key Factors in the Conflict

This section will analyse three factors as key to the conflict in Burundi. The first is the predatory nature of the state, the second ethnicity and the third refugees.

The Predatory State

Natural resources form the basis of material wealth for the state. In Burundi's case the natural resources that are most relevant are land and agricultural produce. The most important source of income for the state is its foreign currency earnings through the sale of coffee, tea and cotton, which together make up 90% of foreign currency income.

The fact that Burundi is relatively poor in other natural resources, such as gems, minerals, oil or timber, affects how the predatory state is shaped. The state is built around the formation of wealth through the sale of resources to an external market and the use of controls and regulations to extract rents from this trade. It is less concerned with the actual production or extraction of resources itself. This stands in contrast to the experience of countries like Sierra Leone, Angola or the neighbouring DRC, where control over those areas with mineral deposits and the means of extracting them are crucial for the continued power of the state, and therefore central to the contest with rebel groups. In Burundi, rebel groups have targeted coffee plantations, tearing down coffee trees, but with the twin aims of reducing government income and symbolically illustrating the exploitation of the peasants by the government, and not primarily in order to capture the coffee harvest themselves. Looting of the harvest for smuggling and export do occur, but are an isolated and occasional feature in the country. Wealth creation from agricultural produce happens at the processing and export stage, which is controlled by the state.

One of the central characteristics of a predatory state is how it distributes the profits from the resources it controls. State income is channelled into private, often prestige consumption by a small elite, and investment in unproductive projects, often capital intensive and industrial, which are chosen for their ability to create rents for their owners and not for their contribution to the economy and society at large. Furthermore, income is often channelled into financing repressive state mechanisms such as the army, which serve to protect this system from the majority of the population. Burundi fits this model of a predatory state perfectly.

The use of income from resources to protect the system is not limited to financing the army. Political opponents are regularly bought out with offers of lucrative positions in public enterprises or powerful civil service jobs. Such political appointments to positions of economic extraction can directly connect control over natural resources with levels of violence. As Beatrice Hibou notes: "In Burundi ... the struggle for control of the most important purchasing offices has been a factor in the development of the civil war."[50] Three of the main gold-purchasing bureaux are the fiefs of individual politicians, and have helped to fund their extremist political parties, thereby directly contributing to funding violence.

This example illustrates the central characteristic of this kleptocratic and predatory form of state formation: the lack of differentiation between the political and economic spheres. Control over the state and political power is synonymous with control over economic opportunity, individually and as an elite group. This conflation of politics, economics and the power of coercion is a recipe for violence; and violence is a basic ingredient in its creation and maintenance.

Gaining and Retaining Access to the Predatory Bureaucracy

The framework of a state machinery structured around the purpose of rent seeking was established during the colonial period, as we have seen. We have also already noted the historical rise to pre-eminence of the Tutsi over the Hutu in gaining access to this state apparatus through colonial education policies, supported by racist ideology.

Unequal access to education remains one of the main means of controlling access to the bureaucracy. This applies to the exclusion of Hutu students, but also reflects the regional bias of the regime, thereby disadvantaging northern Tutsi as well. Ngaruko and Nkrunziza[51] show that state investment in educational infrastructure is regionally skewed to privilege the southern provincial origins of the ruling elite and the capital city. Bujumbura, as well as the southern province of Bururi, has the lowest students per classroom and per teacher ratios, and southern provinces are generally better off than underprivileged northern provinces.

Differential access to education is, however, not the only means used to prevent certain groups from becoming competitors for state access. The concentration of wealth and power in the hands of the minority Tutsi community has not just been the function of 'ordinary' institutionalised discrimination. Competition was systematically prevented through the physical extermination of educated Hutu and those with leadership potential, and through the inculcation of fear. Many Hutu families did not send their children to school after 1972 since they did not want them to be targets in the next round of killing.

Although this most extreme mechanism of exclusion was primarily targeted at Hutus, one should remember that other groups were also denied access to the state and its prospects for economic advancement. These groups include most Tutsi not from Bururi, generally mostly rural youth, who are given no alternative channels for improving their life chances, all Twa, and often forgotten, most women.

The logic of such a predatory system has led to a highly skewed distribution of resources according to two dimensions: sectorial and regional. These dimensions reflect the twin *raisons d'être* of a predatory state: the maximisation of the rent-seeking potential for the existing elite within the centralised state, and secondly, the creation and maintenance of structures which reflect,

reinforce and perpetuate the regional and ethnic characteristics of that elite. The army, the state and the tiny private sector in Burundi have received the vast majority of resources. In contrast, the agricultural sector, which is the main source of exports as well as the occupation for the vast majority of the population, is seriously under-resourced. Regionally, Bujumbura and Bururi provinces receive far more than their fair share of investment. In general, the rural/urban divide in economic development is extreme.[52]

Sectorial Distribution

Hammouda[53] shows that state economic policy changed dramatically from 1972 in terms of relative levels of investment in agriculture compared to the industrial and service sectors. Until 1972, the agricultural sector, which employs more than 90% of Burundi's workforce and produces its main export commodities as well as the food needed to sustain its population, received around 65% of total public investment. The industrial and service sectors, which together made up approximately 40% of value added as a percentage of GDP in 1980, received 36% of public investment. After 1972, coinciding with the epoch of most concentrated *Banyabururi* power, this relationship shifted radically: investment in agriculture dropped to between 20–30 % in the period 1972–1992 and industry received between 70–80% over the same period. This compares to the sectorial ranking as a percentage of GDP: agriculture 46%, services 37.7%, industry 16.7%. Clearly, the country's economic backbone, agriculture, has been comparatively disadvantaged in government investment decisions.[54]

Subsistence food cropping is not lucrative in terms of opportunities for rent seeking, partly explaining the lack of investment within predatory logic. Nevertheless, the regulations that do exist have the purpose of generating rents. Ngaruko and Nkurunziza[55] note that the pricing and distribution policies concerning agriculture which are in place make it dependent on the meagre Burundian industrial sector as a market (i.e. agriculture supplies industrial inputs) without there being a reverse input of industrial products (like fertiliser and tools) into agriculture. According to Ngaruko,[56] this is a policy held over from colonial times.

Predation of the coffee industry, which is the main source of foreign exchange income for the government, acts as a 'cash cow uninhibited by external scrutiny'. As a result of state neglect of agriculture, combined with the fact of high population density and growth, and shrinking land allocation for individual farming families, there is a lack of increase in productivity. There is already a shortfall in food production, compared to national food needs, and this is likely to increase. State neglect of agriculture, therefore, directly leads to the increased probability of famine. A widespread famine is the most direct sign of a government's failure to care for its people. The ongoing policy of neglect has been exacerbated by the conflict since 1993, through the internal displacement of much of

the rural population, and their internment in so-called regroupment camps. With a steadily declining output of staple foods, market prices have more than doubled since the onset of the crisis. Currently Burundi is a net importer of food, while it was previously self-sufficient. Importing food requires foreign exchange, which, as we will see, is allocated predominantly to the small and inefficient industrial sector and the army, and not to ensuring the food security of the majority of the population.

The urban bias of state investment also contributes to the under-resourcing of the agricultural sector. While over 90% of the population live in rural areas, total state funding for the rural sector amounted to 20% in the 1980s. In contrast, Bujumbura and its hinterland received 50% of all public investment, and 90% of all social sector expenditure.[57]

In contrast to the neglect of agriculture in terms of investment, 48% of GDP in 1996 was invested in 37 fully state-controlled firms. If parastatal firms are considered in addition, 77% of GDP flowed into the sector. These firms are easy pickings for the predatory elite. They benefit directly from agricultural pricing, and they receive the vast majority of foreign exchange allocations from the central bank. They also have the political function, mentioned above, of providing a soft landing for ex-politicians. "Rent sharing in Burundi has been used as a political tool to calm down opposition, to buy out potential trouble makers and warmongers or to pay for the loyalty of fellow politicians."[58]

The bureaucracy also, in practice, controls the extremely small private sector. Virtually all private firms are owned by ex-civil servants, and the profitability of these firms is observed to change when there is a change of political leadership, depending on the closeness of the director to the new powers-that-be. The limited foreign exchange rations given out by the central bank privilege the state-owned firms and those private ones with close ties to the government. The sector is therefore not a viable alternative option for wealth creation outside the ambit of the predatory state and its political groupings.

The bureaucracy not only accumulates wealth through corruption and perks such as subsidised housing, travel, and so on, but also through high relative wages. Compared to other African countries, Burundi tops the table in high wages for a relatively small number of civil servants. One in two hundred of the population work as civil servants and their wages make up approximately 20% of total government expenditure. The average civil servant earns 15 times as much as the average Burundian. This seems to run counter to the argument often made by anti-corruption groups, such as Transparency International, that corruption is likely to occur when public servants are badly paid. In the case of Burundi, however, the connection between a corrupt state machine and high civil service wages lies in the common prior variable of minority elite control over the state. Access to the state and the civil service is so restricted to this minority that they have shaped all aspects of it, including the wage structure, to serve their needs.[59]

The monetary value of the few positions in the bureaucracy which are available may certainly contribute to motivating "individuals ... to fight in order to control the state and hence the sources of rent it gives access to".[60] Especially since it is not the civil servants and politicians fighting but the army, and since it is the rural Tutsi as well as the rural Hutu civilians who bear the brunt of the death and destruction.

The army plays a central role in protecting and perpetuating the economic and political status quo of the predatory state, reflected in investments in the military by the government. Military salaries made up 8% of total expenditure and net lending in 1992, which rose to 10% after the start of the current conflict, and were raised to 15% after Buyoya took power in 1996. Military spending on goods and services likewise rose in 1996 from between 7 and 9% of total expenditure and net lending from 1992–1996 to 13–15% from 1997–1999, which is the most recent data. High-ranking members of the military also share in other economic opportunities and have immense powers of patronage.[61]

The Fifth Five-Year Plan privileged Bujumbura and the surrounding area as well as Bururi by allocating 98% of all gross fixed capital formation to these areas. Especially fixed capital projects and infrastructure are a rich source of revenues from corruption. As mentioned above, this shows both the tendencies to go for rent-creating capital-intensive investment, as well as the regional focus of this investment. Manufacturing, mainly of beer, is also based almost exclusively in Bujumbura.

There is a seemingly perverse relationship between regional poverty and control over the state. The southern provinces, which are privileged, are also among the poorest. Soils are poor and the weather colder than in the rest of the country, and so agricultural production is limited. According to Ngaruko and Nkurunziza this means that purchasing power in the southern regions relies heavily on the resources and remittances which flow back from migrants to other regions.[62] Furthermore, since the local economy provides such limited options, young and entrepreneurial southerners invest their energies and resources into rent-seeking activities, such as gaining access to the state, financial institutions, import and export firms and the construction sector. This perspective adds an element to the argument that control over the state as a source of accumulation, the army as a means to enforce and protect this control, and the education sector as a means of accessing it, are crucial for the southern elite, since they see no alternative economic options in their local environment.

The fact that the south remains structurally poor and dependent on remittances from the 'productive' parts of the country would seem to support the conclusion of high levels of corruption in the system. If a region which has been systematically privileged above all others in terms of infrastructure has not been able to build a sustainable local economic base, this infrastructure

investment must have been mostly inappropriate, unsustainable or not actually carried out. Therefore, even the regional privilege does not extend to all inhabitants of that region – only to those who manage to gain access to the state via their connections to the region.

External Economic Relations and Aid

We have seen the distorting effects of predation on the domestic structure of the economy. As mentioned in the section on colonial influences, Burundi's economy is centrally oriented towards external markets; a structure that further supports the predatory nature of the state. This section will look at two external spheres which fundamentally impact on Burundi's economy, and which have contributed structurally but also directly to shaping the conflict and prospects for peace. The two spheres are, on the one hand, Burundi's neighbouring countries and, on the other, the industrialised countries.

Burundi, as a small, landlocked country, has an economy inextricably linked to its neighbours. This relationship has interacted with the conflict in two ways. First, normal economic relationships have largely been replaced with illicit dealings and large-scale smuggling often directly connected to military and rebels' activities in the DRC, Tanzania and Rwanda. Second, in response to Major Buyoya's military coup in 1996, the neighbouring countries imposed economic sanctions on Burundi, with the purpose of placing pressure on the regime to return to democratic rule. These sanctions had an extreme effect on Burundi's economy, but were in turn undermined by the pre-existing smuggling structures.

'Informal' economic connections between Burundi and its neighbours did not only commence with the outbreak of the current conflict, as shown by Burundi's exports of gold and ivory. Although it produces negligible amounts of both within its own borders, Burundi has for decades been an exporter of the two valuables. Eighty per cent of gold exported in the 1990s was smuggled in from the DRC and 19% from Tanzania and Uganda. The government licensed gold-trading bureaux brought the government significant revenue in the 1990s, as did ivory-dealing offices in the 1970s and 1980s.[63] Since the eruption of the 1993 conflict, and the direct involvement of both government and rebel forces in the conflict in the DRC, smuggling has taken on a new character and can even be described as military looting. Large amounts of coffee beans have been smuggled from the DRC into Burundi, to be sold onward to international markets as Burundian coffee, as reported by a UN panel of experts.[64] This form of illicit economy has served to finance both government and rebel forces and the purchase of arms.

Coffee is also smuggled from Burundi to neighbouring countries, as described in more detail below. This is connected to the conflict through a different dynamic, namely the attempt of rural coffee producers to evade the exploitative economic regime and gain better prices for their labour. The 1988

crackdown in the northern coffee producing areas shows how immediate the connection between control over resources and violence can be.

The extent of economic integration between countries can often best be seen when that connection is severed. This was the case when Burundi's neighbours, under the leadership of Tanzania's former President Nyerere, imposed sanctions on Buyoya's military regime after his *coup d'etat* in 1996. These sanctions had the clear political intention of creating pressure on the regime to negotiate peace and to return to the democratic process of 1993. The combined sanctions of regional powers and the international aid community had a devastating effect on the economy, and especially on the rural poor. From an overall positive balance of payments of US$ 1.1 million in 1995, there was a drop to a deficit of US$ 86.7 million in 1996.[65] The World Bank estimates that poverty doubled between 1994 and 1998, partly because of war but largely because of the sanctions.[66]

While the sanctions, once again, hit the poor the hardest, the elite whom the sanctions had originally targeted soon evaded their effects through smuggling networks with regional business groups. President Buyoya's wife herself was implicated in connection with large sugar import fraud by a parliamentary commission of inquiry in 2001. Some neighbouring countries openly flouted the embargo. In January 1999 the sanctions were suspended, partly because it was clear that they were not working and partly as an incentive to encourage peace talks.

Burundi's economic dependence on the developed world is fundamental to the structure of the predatory state. The two main mechanisms of dependence are international aid and international trade in primary commodities, mainly coffee. Burundi's elite has managed to turn dependence to their own benefit through capturing the profits from international transactions and passing on the risks to the poor population. On the other hand, economic dependence can give leverage to international actors in the quest for peace, if that leverage is used wisely.

The export revenue and domestic income in Burundi by far does not cover government development and recurrent expenditure. Multilateral and bilateral donors and development partners for a long time filled this gap. In the period between 1989 and 1991 more than half the finances spent by the Burundian government came from these sources and international non-governmental organisations,[67] averaging US$ 300 million annually, and making up over 80% of total investments[68]. In 1992 foreign aid made up 25% of GNP. Large flows of aid shape the structure of the economy, often supporting the predatory elite rather than development for the whole population.

The retrogressive effects of international financial assistance on the development of the country's economy took various guises. Aid lowered incentives to develop a competitive strategic export sector, leading to ineffective export promotion strategies. Domestic savings remained dismal because external

assistance substituted for any efforts to mobilise internal resources and thus frustrated even minimal domestic capital accumulation. Thirdly, donors and development partners preferred to deal directly with the government rather than with the private sector and civil associations. Public enterprises and the government administration benefited at the expense of the private sector, stifling competition and growth. Civil society was not helped to develop independently. The overall result of this interaction between aid and government policy is massive foreign debt, and falling per capita income.

However, on balance, international aid can also create extreme pressure for reform if donors threaten to withdraw it or actually do so. In the aftermath of the 1988 violence, political reforms were pushed through by the threat of reduced aid, especially by France, one of Burundi's main donors. We have already noted the extreme effects on the economy when international financial assistance was scaled down following the derailment of democracy in 1993 and its eventual freeze in 1995 following the initiation of the regroupment policy. This placed the Burundi government in a desperate economic position. Whether the sanctions fulfilled their intended purpose of bringing the government to the negotiation table is discussed elsewhere in this chapter.

Government dependence on income from exporting primary commodities, especially coffee, to developed markets has already been noted. The national economy is therefore extremely vulnerable to price fluctuations in international commodity prices, and coffee prices are notoriously unstable. The price swings in the mid-1980s brought Burundi's economy to the brink of crisis. The IMF and World Bank reacted with pressure for economic structural readjustment, including a cut in military spending. This threat to elite interests, among other factors, contributed to the outbreak of violence in 1988.

The Connection between Predation and Violence

The previous section analysed the causes and effects, domestic and international, of Burundi's predatory state and economy. We postulate that this predatory system leads to conflict and violence through the following mutually reinforcing mechanisms.

First, the elites use violence to gain and maintain control over the state and its patronage resources. Violence is targeted at potential and perceived competitors for power. This is illustrated by the brutal extermination of most educated and influential Hutus in 1965 and 1972.

Second, there is a temporal correlation between economic crisis and government violence and repression. This is because the resources with which the government has to feed its client base shrink, therefore weakening the position of elite factions within their own networks of patronage. This can be seen as the main impetus for violence in 1988, following pressure because of falling coffee prices and international calls for structural readjustment.

Third, serious competition for political and the concomitant economic power, through democratisation processes and expected or actual reforms incites ruling elite to protect their position through violence. This is what happened in 1993, when the ruling Tutsi-Hima Bururi lobby were faced by the, for them, existential challenge of an elected Hutu-led government. It is generally acknowledged that President Ndadaye was assassinated because he and his elected government tried to reform the system, both politically and economically, and thereby challenged the entrenched interests running it.[69] Violence and ongoing war were considered preferable to losing influence. This dynamic is also present in the current attempts at a peace process. Numerous failed military coup attempts against President Buyoya, who is seen as a moderate because of his willingness to negotiate with Hutu rebels, are indicators that some Tutsi elite, and particularly those in the military, are unwilling to relinquish or share political power.

While these three mechanisms explain the direct violence of the ruling Tutsi elite against Hutus and moderate Tutsis, predation also provides the fundamental basis for grievance and rebellion among the victims of the exploitative system. The episodes of violence of Hutus against civilian Tutsis, and the ongoing rebel offensive against the government army reflect this dynamic.

The reason that the violence resulting from predation does not manifest itself in the form of a class war of elite versus oppressed is the ethnic element. Actual conflicts over scarce resources, which would pit poor, rural Tutsi together with their poor, rural Hutu neighbours against the urban elite, are superseded by a perceived mortal conflict between ethnic groups. This perception is used by those in power in times of instability in order to mobilise support and justify their privileged position.[70] In addition to this instrumental use of ethnicity, however, ethnically based fear and hatred has developed into a potent independent source of conflict during the course of the cycles of violence.

Ethnicity

We have noted that ethnic divisions existed in pre-colonial Burundi, but were not inherently a conflictual division. During colonialism, however, ethnic identity was directly connected to competition for control over the state. Since independence it has been simultaneously denied as a relevant factor by Burundi's elite in public political discourse, and also used as the fundamental factor of political structuring. Ethnicity was and still is the most important factor in determining an individual's life chances, in education, profession, and too often in life or death itself. The effect has been threefold. First there is a deep and existential fear and mistrust of the other group, reaching the level of continual fear of genocide on both sides. An action of one group against individuals of the other can immediately be interpreted as an attack against the

whole group, triggering 'preventative' killing of the perceived aggressors; an interpretation which each group sees as borne out by memories of 1972.

Secondly, concepts of democracy have become inextricably linked to the ethnic calculus, severely constraining options for an end to military rule. As Reyntjens laments about the Arusha agreement, which "institutionalised ethnicity as an important political variable through the introduction of quotas and the practice of alternation [of leadership along ethnic lines], ... in the Burundi demographic context no solution is possible as long as ethnicity remains the only factor of political structuring."[71] The conflation of Hutus with the political majority and Tutsi with the political minority, were there a democratic system, remains deeply ingrained in the peace negotiations.

Thirdly, ethnicity has also shaped the regional dynamics of the conflict. Hutu rebels from Rwanda and Burundi, who live in the same refugee camps in the DRC and Tanzania, are fighting together and in each other's domestic conflicts. Alliances between Burundi rebels and other fighting groups in the DRC have also revolved around ethnic categories.

Refugees

The hundreds of thousands of refugees who are spread out in the entire Great Lakes region because of ethnic repression and massacres have created a dynamic that fundamentally shapes each new outbreak of violence. Refugee camps are used as training and recruitment camps for rebel militias, and as rear bases for attacks on the refugee home countries. FDD, FLN and Palipehutu members all grew up in extreme conditions of scarcity and chronic insecurity in such camps, explaining some of the motivation to return home, even using force. This process has a strong regional dimension. Burundian refugees in camps in Tanzania and the DRC have formed alliances with Rwandan refugees and local groups in DRC. Refugees and exiles who have managed to go further afield, some to developed countries, provide funding for rebel groups.

The question of refugees also poses a central problem for the peace process. Their possible return to Burundi raises issues of land distribution, the return of property and resources taken from them during the violence and a paucity of jobs and resources in general. One of the main issues that triggered a return to violence in 1993 was the expected massive return of Hutu refugees.

Conflict Resolution

We have analysed the history and underlying causes of the war that has been raging in Burundi since 1993. But what are the prospects for peace? Given our analysis that there are two conflict levels – firstly the resource and access

conflict between the governing elite and the general population, and, secondly, the violent conflict between Hutu and Tutsi – we must ask which kinds of conflict resolution initiatives address which conflict. The official 'peace processes', both domestic and international, tend to address the latter conflict between the Tutsi government and Hutu rebels. They may take the issues of political and resource exclusion more or less into account. While it is certainly necessary to come to an agreement that will end the violence between these two groups, the first conflict must not be relegated to a subcategory of this violent conflict, that is something to be addressed once the political stalemate between elite and fighting groups on both sides has been overcome. It must be responded to in its own right. In addition to being the sole basis for a sustainable peace, moves toward greater 'structural peace' may also help to resolve the political stalemate, and must be supported in parallel to and even before a formal negotiated peace. Some non-governmental and 'third-track' peace initiatives, domestic and international, are working in this direction.

This section will look at both official and non-governmental conflict resolution initiatives. Concerning the official negotiations, we will see that in the current process there are conflicting priorities for the twin imperatives of finding an immediate versus a long-term sustainable peace. Looking at the non-official peace initiatives, we will ask how they can help to avoid a situation where the immediate peace agreement once again becomes a trigger for future violence, because it has failed to adequately address the underlying causes of the conflict, that is exclusion, the distribution of political and economic power, ethnic identities, and the position of refugees. Finally, we ask how the peace processes deal with the question of environmental factors. In sum, while there is much promise in the various peace processes, both official and civil society initiatives are threatened by a lack of domestic and international political will to support real social transformation.

Official peace initiatives have taken many forms since 1993. There have been repeated domestic attempts at reconciliation between 1993 and 1996, which did not prove to be successful at defusing or allaying ethnic tensions. The failure of the 1994 power sharing *Convention de Gouvernement* (Convention of Government) even served as the justification for Buyoya's 1996 coup. Regional and international peace interventions included an OAU military observer mission from 1993 and the naming of UN, EU and US special representatives. These initiatives had little effect. The main international and regional initiatives – sanctions and the Arusha peace process – did have significant, but very ambivalent effects.[72]

The 1996 imposition of sanctions and withdrawal of aid were intended to pressure Buyoya to restore parliament, allow opposition political parties, and begin "immediate and unconditional" negotiations with all parties to the conflict. In fact, the sanctions had the effect of radicalising Burundian politics,

thus marginalising moderates among both Hutus and Tutsis. Commentators, such as Jan van Eck, evaluate the sanctions as having been counterproductive and possibly prolonging the conflict.[73] The rebel groups, especially the CNDD, felt legitimised by the sanctions, and were not hurt economically, since they were based outside Burundi. They therefore had no incentive to negotiate with the government, since for some time they had reason to expect outright victory. The government elite and military, on the other hand, did feel the economic and political pressure of the sanctions, but managed largely to pass the physical hardship on to the population, while maintaining their own standard of living through large-scale smuggling. The effects of the sanctions were also soon undermined by the lack of enforcement or active breach of the embargo by some neighbouring countries, such as the DRC. Sanctions were lifted in January 1999 and international aid was resumed, as a supporting incentive for negotiations, which had the effect of strengthening Buyoya's position.

Since 1998 the official peace process has been framed in a series of meetings in Arusha, Tanzania, led first by President Nyerere of Tanzania, since mid-1999 by former South African President, Nelson Mandela and more recently by Deputy President Jacob Zuma. This process is seen as the key to future peace in Burundi, but may in practice legitimise a continuation of the war.[74]

The negotiations have led to the signing of an agreement in August 2000 – the Arusha Agreement on Peace and Reconciliation in Burundi – which addresses most of the underlying causes we have identified in a detailed and constructive fashion. The content of the agreement was worked out in five committees, chaired by international experts, on:

- the nature of the conflict;
- democracy and good governance;
- peace and security;
- reconstruction and economic development; and
- guarantees for implementation of the peace accord.

The three completed protocols (1, 2, and 4) "outline a clear and precise action programme which seeks to move Burundi towards reconciliation, democracy and reconstruction".[75] The report of Committee IV on reconstruction and development addresses the issues of how to reintegrate refugees, the need for political inclusion, and the need to restructure the domestic economy. Increased investment in the rural and agricultural sectors is included. Difficult political issues such as the reinstatement of refugee property and the need to reform the ownership of Burundi's economy are clearly noted and agreed, amounting to a clear plan for redistributing the riches of the country.[76]

The problem with the peace agreement in Burundi's case is not, therefore, the content, but rather the likelihood of implementation. Notably, the two

protocols on which agreement was not reached are those on peace and security, including a ceasefire, and guarantees for implementing the accord. Despite the promise of a serious resumption in the talks during August 2002 in Tanzania, including the government, the FDD-CNP, the CNDD-FDD and possibly the PALIPEHUTU-FNL several reasons remain why the agreement as it was signed may not be fully implemented as intended or may even become the reason for renewed fighting. There is, firstly, a lack of real political will among elite leaders; secondly, the ambivalent position of international influence on the peace process, and finally, the failure to adequately integrate civil society in the official peace process.

The negotiations of the peace processes have become another arena for Burundi's elite to compete for control over the state. The negotiations are an extension of the struggle among competing individuals and factions within Burundi's small governing elite to obtain or retain wealth and power – politics as war by other means, to invert Clausewitz's famous phrase. This is illustrated by the continually shifting alliances and strategic partnerships among groups and individuals. With 19 signatories to the Arusha Peace Accord prior to the start of the most recent initiative, the cross-ethnic alliances of the parties are as important as their ethnic divisions. For example, the G7 group of Hutu parties which often formed a negotiating block, and the G6 group of moderate Tutsi parties who are opposed to the present military government led by Major Buyoya, joined forces in March 2001 to back Hutu Domitien Ndayiyzeye – the opposition FRODEBU party candidate – as president with Tutsi Colonel Epitace Bayaganakandi as vice-president. This proposal was rejected by other groups, but serves as an example that ethnic lines as well as regional and ideological lines are porous in these negotiations. There are certainly differences among the politicians. The genuine desire of some to bring about democratic rule and peace should not be trivialised, but the main dynamic driving the negotiations is not programmatic but strategic.

The questions of army reform and the structure of the transition government directly affect which groups can retain or gain power. Therefore they have been the most difficult on which to reach agreement. Furthermore, the ruling Tutsi elite which currently controls both the army and the government, is in a stronger position to veto any suggested reforms by threatening to exit the negotiations. This has reduced the scope of the discussion to the creation of conditions which retain enough veto power (military and political) for the ruling Tutsi elite minority so that they feel able to protect themselves from the perceived threat of the Hutu majority. The acceptance that the peace process will provide this security is by no means a given, as the repeated coup attempts by militant Tutsi against the negotiating government attest. As long as minority security is the priority, and as long as the Tutsi elite interests retain the bargaining chip of the army, there can be very little

meaningful action on the front of reforming the system of control over resources.

The second element which reduces the likelihood that the Arusha agreement will be successfully implemented is that the armed Hutu rebel groups have not been included in the negotiations from the outset, and therefore see the agreement as illegitimate. This has partly been the reason that there has been no ceasefire agreement with the rebels, which, in turn, has diminished the willingness of the Tutsi state authorities to find a security compromise. After the signing of the peace accord in August 2000, the worst violence which Burundi has seen for many years broke out, as the rebels protested against an agreement they did not see as their own.

Third, the international element of the negotiations has been simultaneously too directing and too weak. The International Crisis Group criticised Nelson Mandela, the former chief facilitator, for pushing ahead with the signing of the accord before the stakeholders were fully agreed. Too much focus was placed on the accord itself and not enough on the means by which agreement was reached and the effect this would have on the probability of its implementation. After 26 months of debate between 17 parties, the government and the National Assembly, which resulted in the main substance of the agreement, substantial and significant amendments were made in a single night's negotiations between two people: Pierre Buyoya, President, Commander in Chief of the army and leader of UPRONA, and his main political adversary Jean Minani, President of FRODEBU and leader of the G7 coalition of Hutu parties. During this night Buyoya demanded "last-minute compromises ... in return for his signature the next day."[77] The result was an agreement with highly contested provisions for a transition government, opening the probability, at best, of endless continuing negotiations, and at worst, recourse to the military option.

The lack of international engagement with the post-accord details is shown by the fact that since August 2000 until the recent request by the South African facilitation team and the transitional government to Tanzania to help to bring the rebels to the table, there has been very little constructive movement on this issue. Furthermore, international actors have been reluctant to commit peacekeeping troops to monitor the transition period, resulting in an agreement to deploy a South African military protection force during October 2001. Finally, the international community has failed to mobilise significant resources to support Burundi in addressing the humanitarian crises in the country, including the reintegration of refugees and the demobilisation and reintegration of rebel and militia fighters.

There have been significant domestic and international non-governmental initiatives, which have been constructively aimed at reconciliation and structural change. Such initiatives, however, have been largely excluded from the official peace process. The exclusion of domestic civil society from the peace

process, in particular, weakens the potential for real transformation. As Ali notes, even if a peace agreement acknowledges the importance of "sharing the spoils" of control over the state, this still only constitutes a sharing among elite, and continues to exclude the ordinary people.[78] Furthermore, there is no effective means for civil society to monitor the implementation of the peace agreement – if there were, this would lead to both greater accountability and legitimacy of government, and greater public trust and identification with it. These are important peace-building aims in themselves.

Non-governmental initiatives can be very effective in providing space for dialogue and reconciliation. Many organisations in Burundi, such as the *Compagnie des Apotres de la Paix*, the Human Rights League ITEKA, the *Communautes Ecclesiales de Base*, and radio stations such as Ijambo and African Public Radio have indeed done so. Concerning our central question, however, civil society cannot itself plan and implement structural changes in the way the state exploits the resources of a country and how it distributes the proceeds. The only way in which civil society can influence this is through pressure on a responsive state, which, as we have seen, does not apply in Burundi.

Grass roots and civil society initiatives can, however, play a crucial role in addressing the local, community-based resource conflicts as well as the ethnic enmities created by the decades of violence. If it is too great a job to tackle the meta-conflict all at once, it may be possible to work on smaller, local conflict dynamics, such as the issues of resource competition at the local level. The resource conflict, which exists between members of a community (including between Hutus and Tutsis) or between those who have stayed in Burundi and those refugees now returning, can be addressed co-operatively at the local level. If modes of reconciliation and cooperation between groups at the local level can be achieved, perhaps through joint agricultural or environmental programmes which benefit the entire community, then this creates peace constituencies which can impact on the national level negotiations as well. Joint projects centred on sustainable natural resource use and sharing can help to overcome ethnic enmity and mistrust. A popular peace constituency, which realises that its daily problems can be solved without resorting to ethnic hatred, is potentially a great step toward disempowering the manipulative elite.

In addition to the problems of internal dynamics, Burundi's peace process is also bedevilled by the fluctuating conflict in the DRC. The rebel groups, who continue their violent attacks in Burundi, were long financed by the governments of the DRC, Zimbabwe and Angola because of their strategic alliance against the Congolese rebels supported by Rwanda, Uganda and Burundi's government. This financial and political support, also from Tanzania, long gave the rebels no need to negotiate, since they believed in the possibility of winning the war. Since the resuscitation of the Lusaka peace process in the

DRC after the death of President Desire Kabila and the accession of his son, Joseph, the DRC government has committed to disbanding and demobilising the forces which it had supported on its land, including Burundian Hutu groups. This has created pressure for the rebels to move back into Burundi, but with their arms and their intention to win the conflict intact. The uncertainty of this situation, also given the slow and complex progress of the Lusaka process in the DRC, is likely to destabilise Burundi and the whole region for some time, if the peace processes cannot be coordinated.

In sum, the conflict resolution attempts to date are far from achieving the conditions for a 'positive peace' which would allow for a transformation of the structural underlying causes of the conflict.[79] The longer the conflict continues, the more Burundi's population, environment, and economy will suffer, making reconstruction ever more difficult and fraught with competition for ever-shrinking resources. At the time of the accession of the interim government, the Arusha peace agreement has not even managed to provide the citizens of Burundi with a 'negative peace', a respite from violence, from which a trajectory towards a positive peace might be found.

Overview of the Environment

Burundi has been described as the 'Switzerland of Africa'.[80] Its undulating landscape is punctuated by rich and fertile soils and its hills by cold temperatures for most of the year. Burundi lies in the Great Rift Valley belt, with agriculturally rich volcanic soils. The country's "... geography, climate and ecology are characterized by impressive heterogeneity."[81] No wonder then that cash crops like tea and coffee thrive in certain areas of the country. Burundi has, until recently, been self-sufficient in food production.[82]

Land occupies in excess of 90% of the country's 27 834 square kilometre total surface area. Lake Tanganyika and small rivers occupy the rest. The Imbo plain along Lake Tanganyika accounts for 7% of the total land area. The Imbo plain is between 700 and 1 000 metres high, with relatively fertile soils. There is then the central plateau, (1 500–1 900 m high) which covers the widest part of the country, accounting for 52% of the total land area. Many rivers and streams cascade across the central plateau, making the landscape a series of slopped hills and narrow valleys. Soil fertility varies, but is constantly decreasing because of demographic pressure.

A chain of high mountains in the western part of Burundi directs the flow of water in two directions: towards the Congo River to the west and the Nile River to the east. This mountainous chain takes 15 % of the total land area and is between 1 900 and 2 600 metres above sea level. Soil fertility is good in valleys but poor on eroded hillsides. There is, additionally, the Kumoso depression along the Burundi-Tanzanian border, and the Bugesera depression

to the country's north-east, which accounts for a total of 16% of the total land area. Soil fertility in the depressions is poor. Burundi's natural vegetation is mainly mountainous forest, clear forest and grassland. Most of these are in state- protected areas, which amount to almost 127 000 hectares.

Lake Tanganyika, which Burundi shares with Tanzania, Malawi and the Democratic Republic of Congo, is in the country's south-west and traverses the provinces of Bujumbura, Bururi and Makamba to the south. A fresh water lake, it augments protein sources of the country's population through fish and is an important transport gateway to the contiguous countries. With respect to water for both domestic and industrial consumption, the lake's provisions are augmented by generous rainfall for most of the year.

There are three seasons annually, resulting in 31 000 million cubic metres of water. These are the short rainy season between October and January, the long rainy season between February and May, and the June to September dry season. Over 20 000 cubic metres is lost through evaporation.

Burundi's natural environment is ideal and suitable for agriculture at both the commercial and subsistence levels. The country has no significant amounts of mineral resources (as opposed to its neighbour to the west, the DRC). Its economic wellbeing has and continues to hinge on the productivity of the land and especially on its ability to feed itself and procure goods and services from abroad through foreign aid and foreign exchange receipts. These foreign exchange receipts largely accrue from the agricultural sector, pointedly from coffee and tea exports.

Several constraints have reduced Burundi's optimum harnessing of its natural resources. Firstly, the country's landlocked status reduces the value of net receipts from agricultural production, even as it inflates the prices of imports. Secondly, population density (at an average of 230 per km^2) has led to a marked decline in productivity of the land per acreage and intense colonisation of uninhabited land. Additionally, intensive cultivation and livestock production has subjected land to serious soil erosion and loss. This has been made significantly worse by the general topographical character of the land, undulating as it is.

The intensive use of fertilizers (when available and affordable) accounts for yet another reason for the decline in soil fertility and thus production. Fourthly, the poor, coercive and uncoordinated management of the natural environment has had multiple retrogressive influences on the fortunes of the country's majority poor who subsist off the land. Intense competition for scarce land, and clashing visions of how the land should be productively used between the peasantry and the leadership, has served to further frustrate sustained and productive yields.

Land use: Blighted History, Central Control and Natural (Mis)fortunes

General Characteristics

Land in Burundi, as in many agricultural countries, is of great cultural attachment and economic value to the people. It is even more intensely so in the case of Burundi, given the country's unsustainable population density and consignment of agriculture as the critical national 'bread winner'.

Economic activities in Burundi revolve around agricultural activities. Over 85% of the country's population are engaged in the agricultural sector. Food crops, mainly for subsistence, represent 87% of the total crop production. Cash crops take the rest; coffee (8%), tea and sugarcane (1.7%), and others (3.3%). The following table breaks down the respective land area occupation in Burundi.

Table 1: Land use[83]

Land use	Area (ha)	% of land area
Natural vegetation (including swamps and non-cultivated forests)	240 716	8.6
Forests	128 375	4.6
Pastures	775 506	27.8
Food crops (outside of swamps)	1 210 000	43.3
Cash crops	104 000	3.7
Cultivated swamps	81 403	2.8
Lakes	263 400	9.9
Towns	25 000	0.9
Total	**2 783 400**	

From Table 1, land in Burundi is primarily put to agricultural production. It is also clear that the majority of the population lives in rural areas, as urban areas are restricted to a mere 0.9% of the total land area. Beginning in 1933, the colonial government began the establishment of forest reserves. This continued in the succeeding years resulting in sizeable areas being marked as protected zones today, including the infamous Kibira forest.[84]

The significance of land use in Burundi has a blighted social history. A system of social and economic relationships existed between communities in the countries prior to the advent of colonialism. This system's characterisation as 'feudal' has been the subject of intense dispute between the Hutu and Tutsi in Burundi. Whereas many Hutus view it as the ultimate historical illustration of Tutsi exploitation, injustice and domination, Tutis and their apologists see it in the light of a flexible social and economic system.[85]

The 'feudal' system, which was abolished by ex-President Bagaza during the 2nd Republic when he assumed power in 1976, has existed in Burundi for a long time. *Ubugererwa*, as it is locally referred to, is closely associated with the advent of the monarchy and its intricate social and economic relations. In this system, a person would work for a more fortunate one, usually a Tutsi, without compensation. The 'serf' was referred to as *Umuhutu*, and the 'lord' as *Umututsi*. The parcel of land that the *Umuhutu* was living on would never become his property or the property of his descendant. *Umuhutu* and his children always faced the prospect of expulsion from the land on account of flimsy and unsubstantiated accusations for instance for allegedly plotting against the 'lord'. Injustice thus prevailed during the royal regime, especially through the capricious and unjust dispossession of the serf's land and cattle.

If *Ubugererwa* centered on land exploitation relations between the Hutu and the Tutsi, *Ubugabire* revolved around the other pillar of traditional economic activity, livestock. *Ubugabire* involved the lending or donation of a cow of the owner of a herd to someone who had none. In return, the beneficiary, inordinately a Hutu, would serve the benefactor in all manners of ways. Ultimately, the net beneficiary was the benefactor. The relationship was impregnated with connotations to the effect of 'supplicant' 'requests' 'submit' 'command' and 'control'.[86]

The social and economic relationship between the Hutu and the Tutsi has been variously characterised. However, there is a convergence that notwithstanding the social group to which either the beneficiary or benefactor belonged, the beneficiaries from this system were mainly Tutsis, with few Hutus playing the role of 'lord'. The internal flexibility of the system with respect to the social group membership is strongly disputed. On the one hand, Buyoya asserts that the system was flexible and Hutus could rise up the social ladder with ease. On the other, Ndarubagire, himself a Tutsi, maintains that the system was inflexible and coercive, with the classical characteristics of any other feudal societies in history.[87]

Land use and tenure in Burundi carries a great deal of historical baggage. The Hutus see a connotation embedded in their *Umuhutu* as that of historical servitude. Given the exploitation of the environment as an integral, indeed the crux of feudal relations, it becomes clear how the use of land and ownership, as well as exchange laws have shaped the perceptions of the social groups in the continuing conflict in the country.

The unfortunate nexus between history and land use in Burundi is only part of the complex relationship between Burundians and their land. Less social but real is the concrete conditions that serve to provide fuel for conflict between social groups in Burundi. The country's unsustainable population density (averaging 230 people per km^2 but as high as 360 persons per km^2)[88] in some areas has been a source of conflict, directly and otherwise.

Agriculture and housing have exerted great pressure on land. Added to the harvesting of forests for fuel use, the land is increasingly vulnerable to worsening soil erosion and is therefore becoming less productive. Four problems are evident with regard to land in Burundi.

First, land scarcity is evident in both rural and urban areas. Because it remains the principal capital for the household, there is the problem of intense competition. Secondly, cultural practices and traditions of land inheritance from father to son has led to the increased subdivision of land between sons, decreasing the economies of scale that would otherwise accrue from reasonable parcels. This increased subdivision has led to general decline in soil fertility and productivity. Third, the traditional land tenure system of subdivision between male heirs has led increasingly to the shrinking of household land. Increasingly, land is becoming too small for viable subdivision, effectively disinheriting some members of the household and leading to migration. Related to this is the limiting of shifting cultivation between pieces of land. The effects are over-exploitation of parcels, declining productivity and the concomitant increase in food prices because of scarcity. Additionally, migrations are taking place from less productive areas to more vulnerable but uninhabited and thus fertile land: hillsides. The effect of increased erosion of vulnerable areas and the declining fertility and thus productivity of traditional farming areas has been multiple: food scarcity, increased areas under cultivation, reduced soil fertility and intense competition for land.

The land tenure in Burundi has always been controlled from the centre. During the pre-colonial period, all land belonged to the *Mwami* or the king, to dispense and distribute at his pleasure. He held the right to distribute as well as dispossess owners as he deemed fit. In this arrangement, land was the king's prime source of patronage and reward as well as punishment because of the status symbol that inhered in land ownership. Accordingly, and as would be expected, land ownership was concentrated in the hands of the king's relatives and administrators, inordinately the Tutsis and the princes of the royal blood, the *ganwa*.

Tendered, the traditional Burundi society was not purely feudal. However, the majority of the Hutu were viewed as servants and 'serfs'. In this social class were some poor and disfavoured Tutsis. Without secure rights to land, peasant Hutu and poor Tutsi gained usufruct rights to land owned by the ruling class. The picture changed little during the colonial period and persists today. Land tenure has changed little. The state has assumed the role of the

king by allocating rights of ownership and access to land. Land allocation is highly skewed in favour of powerful actors and groups, to the disadvantage of a large section of the population. Rights are few for most Hutu, for poor Tutsi, as well as for the minority Twa. The misfortune of the Twa minority has been made worse by the declaration of their traditional forest, Kibira, as a protected forest reserve. The conflict in Burundi has inordinately been played out as if the Twa matter little, if anything at all. Yet their exclusion presents perhaps the most unrecognised and unappreciated tragedy of the conflict, relegated to the margins of the political as well as economic activities of the country.

As land scarcity increases in response to population growth, landless farmers migrate in search of available land elsewhere, often generating suspicion on the part of communities into which they integrate.[89] Official corruption is a further problem. High-ranking government officials in some cases claim land owned by the state for commercial purposes. Land grabbing by influential politicians and businessmen not only generates conflicts, but also undermines the confidence of rural populations in laws that prohibit access to protected areas, and to those that prohibit certain environmental practices. The net effect is increased social hostility and suspicion as well as further fracture between central and rural visions for the sustainable use of land.[90]

Livestock production accounts for 5% of the total food production in Burundi. In addition to land, cattle, and specifically the *Ankole* breed have had a great social as well as economic value. However, the social esteem with which livestock is held has been under sustained attack from the declining and limited pasture as well as competition for land for cultivation. Livestock rearing on a significant scale persists in the Imbo plains.

The historical association of cattle and the Tutsi community has contributed to a dilemma in priorities. With increasing population growth and the resultant diminishing of land resources, livestock production has been put under the spotlight. Competing claims between livestock farmers and cultivators is a rural source of inter-communal conflicts in Burundi. The scarcity of grazing resources, to a large measure, corresponds to population pressure. Resource scarcity is greater in the Buyenzi and Kirimiro areas, while resource availability is greater in Bututsi.

Coffee represents a dialectic of sorts between central priorities and rural prerequisites. Burundi ranks among small producers and has only less than 1% share on the world market even though coffee accounts for 90% of Burundi's exports. Its production has been characterised by coercion and mutual antipathy between the government and the peasantry.

Coffee was introduced in Burundi early last century by missionaries and the first plantations developed around religious missions. The German colonial administration disseminated the crop first, then the Belgians took over its spread in 1920. The latter spread it all over Rwanda-Burundi villages. Peasants

perceived this as another colonial constraint and hence disliked the crop.[91] The Belgian colonial administration then introduced the '*poll tax*' which was compulsory for every adult male, and peasants were forced to set up small coffee plantations in order to have funds to pay the tax. Coffee growing was therefore perceived as the means of meeting tax obligations rather than a way of making profit. In World War II, coffee extension was replaced by food crop extension so that the population could solve the food scarcity linked to that period. Coffee production has been on the decline due to the ongoing civil war but also as a result of increasing scarcity of arable land that has been cleared to make room for food crops needed by the ever-growing population.

The rural population has always been wary of food security, but because this is largely for subsistence purposes, coffee, and similarly tea have served to provide much-needed hard cash for other needs, like education.

Natural Resource Management

Burundi falls short of the minimum requirements for sustainable natural resource management and utilisation. In part, this failure is part of a broader dynamic in the conflict in the country. The significance, nevertheless, of an appreciation of the importance of natural resource management has not been lacking. On the contrary, it has been viewed as an integral part of man's relationship to his natural environment. This is illustrated by the tale of a monarch's refusal to destroy the country's sprawling natural forest to flush out mutineers to his rule. Oral sources report that in the early 20th century, *Mwami* Gisabo refused to put the Kibira forest to fire where a rebellion had erupted under the leadership of one of his sons-in-law. The monarch advanced that this was because "Kibira Forest is the link between the sky and the earth, and therefore no one had the right to destroy it."

The uncoordinated character of natural resource management in Burundi has resulted from the lack of a proper overarching environmental legislation. Its chaotic and coercive character has ensured that it did not strike a chord with the rural inhabitants who are the traditional custodians of the environment. The undermining of the traditional *Bashingantahe* conflict regulation institution has watered down public confidence in the peaceful resolution of disputes arising from the exploitation of natural resources.

Beginning with colonial coercion of the population in soil erosion initiatives, natural resource management initiatives have been top-down and coercive, and viewed by the population as punitive. As such, and lacking strong legal backing after colonialism, little headway has been made in the sustainable management of Burundi's natural resources.

The pivotal traditional role of the council of wise men or *Bashingantahe* was systematically eroded with the advent of colonialism and the successive military dictatorships in the country. Land disputes between communities, hitherto manageably contained by the institution, exploded.

An analysis of the framework regulating land use illustrates the disorderly and exclusive character of government approaches. The Land Law, a set of rules governing the use of land, is no longer in use. The Act, No 1/0088 dated 1986, which creates the Burundian Land law was intended to indicate different rights linked to national land ownership. Close examination of the act reveals that it does not include clauses that protect land against degradation through erosion, over-exploitation, and inappropriate farming practices that would result in decreased productivity. Furthermore, rather than complement the Forest Act, the Land Act, which was issued one and a half years later, serves to limit the application of the former. In fact, competencies for decisions regarding forest transfers or concessions are conflicting. Moreover, the Forest Act ignores traditional rights and habits. The following strategic guidelines were set up by the government of Burundi through the Ministry of Land and the Environment in order to redress the limitations:

- revision of the Land Act with the aim to protect soil against erosion, pollution, unsustainable farming practices, integrated planning of soil use and to combat desertification;
- application of the Swamp Master Plan that provides guidelines on their management;
- inventory of soil use;
- introduction of soil use cards; and
- adoption of soil conservation measures.

The strategies are intended to improve land use and condition. However, they ignore traditional rights and experience. The preparation of conservation blueprints takes little account of the concerns of the population.

The management of the cash crop sector has not been inclusive or transparent either. In the coffee and tea subsectors, the ruling party (UPRONA)'s 'mobilization of the population' characterised government campaigns. As in many parts of the developing world that rely on cash crop foreign exchange receipts, it is against the law to uproot cash crops because of dissatisfaction with compensation for harvests. This made it even worse for the rural population caught between the need to make use of the land to fulfil more immediate needs and a law that effectively left them without an alternative.

The Ministry of Agriculture carries out cash crop management through specialised government institutions, that is ISABU and OCIBU, the state-run tea and coffee parastatals respectively. Actions aimed at improving the coffee quality and quantity have been put in place since the post-colonial period, that is the establishment of tree nurseries, plant distribution, insect control, as well as installation of local treatment facilities.

Each coffee 'campaign' has been injecting large outlays of money into the production areas, but the distribution has been unequal from one region to

another. The price per kilogram also varies in the field. The production of coffee faces a myriad of problems today, as little is done to encourage farmers. The price per kilogram is far below production outlays, and the government recently dismissed agricultural instructors. The dynamic of the conflict and land fragmentation have undermined the productivity of the cash crop subsectors, as has competition for land within the context of increased demand for food production.

The management of the livestock subsector is the preserve of the Ministry of Agriculture and is thus removed from the management of pasture, which is entrusted to the Ministry of Land and Environment. The lack of co-ordination results in programmes working at cross-purposes. The prudent and coordinated management of this subsector is even the more crucial owing to diminishing arable land and the dangers inherent in overgrazing, which has led to the increased cases of serious soil degradation.

Demography plays a significant role in the distribution and exploitation of natural resources in Burundi. As illustrated earlier in this chapter, increasing population density has intensified inter-regional migration and accentuated violent competition for scarce land resources. A considerable size of small parcels of land are to be found in the country's central plateau, which is the older, populated and the bigger of the less populated regions that were recently inhabited (Kumoso and northern Imbo). The most important intra-regional migrations are those directly related to the search for new agricultural land, notably the flow of population towards these areas and Buragane. The tensions emanating from these population movements is aggravated by returning refugee caseloads, which are bound to settle further spaces as their pre-flight settlements and land had been occupied by the remaining population.

Politics and political decisions have greatly influenced natural resource redistributive patterns in Burundi. Various legal provisions (the Land Act, Forestry Act) and other pertinent legal conservation measures point to large parts of Burundi demarcated as forest reserves, especially protected areas and swamps. However, the political class has remained largely indifferent to these laws, expropriating and appropriating the country's natural resources to themself.

Economic decisions and planning in Burundi has ensured that production plants such as factories were established near industrial crops, for example the Sosumo (the Mosso sugar plant) located in the plain of Kumoso, the palm factory of Rumonge, and the tea factories. This arrangement has alienated rural populations, who lack the level of qualifications required for working in the plants. The result has been the 'importation' of urban populations to staff the factories. This has been a portentous source of resentment and conflict, more so because of the near-coterminous relationship between the Hutu, largely rural and Tutsi, urban and skilled.

Land ownership patterns show that various social categories exist in Burundi:

- displaced landowners: refugees, internally displaced and urban employment migrants;
- poor peasants: these hold small parcels of land in constant degradation caused by intensive farming. Others rent their land or do other intensive work to gain revenue;
- smallholders: these are medium income earning people and tend to become peasants because of land fragmentation resulting from repeated subdivision;
- medium owners: these are relatively well-off people having easy access to land resources; and
- big owners: these are rich people with access to and control over both land and land development resources.

Also of importance are the inheritance and successor rights which disinherit women. The system is patrilineal and characterised by successive subdivision of land between sons.

Productive use of land requires the following:

- Capital: critical as it is to productive activities, capital is ill distributed and is largely inaccessible in rural areas. It is however abundant to the authorities and some government workers who are well placed and 'politically correct'. Left to their own devises, the majority of the rural population rely on family gifts and inheritance. NGOs, banks, community organisations as well as trade associations provide potential sources of capital.
- Security: in Burundi where the population is divided into conflicting ethnic groups, security is a prerequisite in considerations for the setting up of different productive activities. Here again, the most secure group is the Tutsi community that enjoys protection from the army and the authorities, as well as commanding political influence. One of the reasons for the cyclical episodes of ethnic conflicts between the Hutu and Tutsi is the determination of the latter to ensure security for the community's productive activities and that of the former to gain a foothold in controlling the same. Besides, security is critical in the acquisition of capital in Burundi.
- Knowledge: this is accessed through NGOs, family and bank support, and the government. Exclusionary government policies have ensured that a majority of the peasant Hutu community lack the skills and knowledge necessary for the exploitation of economic opportunities, including the harnessing of natural resources.
- Transport facilities: the landlocked status of Burundi is a major impediment to production. Transport beyond the country's frontiers is facilitated

principally by the government, banks as well as community organisations. Here again, the predominance and political influence of the Tutsi community ensures that Tutsi businessmen are at an advantage.

Trade and Market Structure

Regarding trade and market structures, a number of unfavourable factors inhibit fair and efficient internal trade of agricultural products. These include lack of storage systems, bad conservation methods and limited supply channels, as well as relatively unstable prices. The market structure is imperfect, characterised as it is by two unequal players. These are a small number of traders and a great number of producers who access a single and same market and deal in a single product. There are few intermediaries and the price offered is very low. On some retail markets, about 70% of traders are producers themselves who sell small quantities of their produce. Producers and retailers often live far from markets, and can only access the markets on foot.

In Bujumbura, most agricultural products are sold by retailers who buy from producers or from other retailers. Trade in agricultural products is mainly retail. Wholesale trade is less developed and is limited to trade in beans. Some large consumers purchase via bidding for sale from traders who manage to mobilise important quantities. According to other sources, storage of great quantities is impossible by large-scale traders but this is done by other contractors of collectors in producing regions depending on demand and the state of the market.

Poor organisation, lack of transport, the near absence of an information network, and losses through poor storage undermines efficiency. These market imperfections explain abnormal profit margins, instability of prices and weak incentives for producers. Most of the produce ends up in Bujumbura, the most important and secure market. The government has done little to correct these market imperfections that allow a small coterie of influential businessmen to dominate the trade in agricultural products. On the other hand, it exercises close and tight control over the pricing of cash crops both in fixing the price and in the marketing of the products.

As a result of these constraints and the decline of productivity, producer prices have declined enormously in real terms, providing little incentive to farmers. During periods of good harvests, financial reserves of the stabilisation fund are used to close the budget deficit in total disregard of the sole purpose of the fund of stabilising producer prices in order to protect them against fluctuations in prices on international markets. When prices decline, the shortfall is not covered by the depleted stabilisation fund. The result is that the producer's purchasing power worsens.

High population density amid a rapidly increasing population, poor planning and the relative absence of a coherent agricultural policy have contributed to worsen the environmental conditions of Burundi. The

over-exploitation of the soil has drastically reduced per capita production of food as well as of cash crops. This is an indicator of the environmental decline. This has been accentuated by the intensive use of fertilizers in the production of cash crops, principally tea and coffee, some of the most fertilizer-intensive crops. The net effect has been felt more heavily in the decline of food production.

The following table illustrates the decline over the years of key cash crops in Burundi between 1994 and 1998.

Table 2: Cash crop production

Year	1994	1995	1996	1997	1998
Coffee (tons)	41 000	28 000	26 000	20 000	17 000
Tea (tons)	Not available	6900	5800	Not available	5600
Cotton grains (tons)	4900	4600	2600	2300	3400

Source: Statistics and Agricultural Information Department, 1999

Reasons for the decrease in coffee production are multiple. During the period after the widespread outbreak of the civil war in 1993 the population undertook to destroy coffee plantations and replace them with food crops. Coffee has always been perceived by the producers, who were essentially Hutu, as a means of central taxation of their labour, first to the colonial authority and later to the post-independence governments, and not as a means of economic self-advancement. In the post-independence period, Hutu coffee growers continue to view coffee mainly as a source of income for local authorities, which for the last 40 years or so have been Tutsi.

Political propaganda in 1992 strongly harped on this feeling. Following the assassination of President Ndadaye (Hutu) in 1993, Hutus undertook to destroy coffee plantations in retaliation so that the Tutsi group who had just assassinated the president should not benefit from the wealth generated by the coffee industry. As a result, over 1 924 841 coffee trees were destroyed. Continued pressure on limited land and increased fragmentation have also ensured that food crops replace coffee trees.

The decline in coffee production can also be attributed to the reduction of fields sewn, the destruction and/or the abandonment of related infrastructure and production units, lack of agricultural fertilizers following the economic embargo (1996–1998) and low performances of support services.

Table 3 corroborates the declining trends of cash crop production per capita.

Table 3: The production of major cash crops per inhabitant

Year	Coffee	Cotton	Tea
1993	6.29	1.52	4.53
1994	3.29	0.84	5.64
1995	6.85	0.76	5.39
1996	4.14	0.42	4.62
1997	4.21	0.38	3.35
1998	3.17	0.51	5.02

Source: Central Bank, 1999

Shrinking forest cover and the concomitant availability of wood fuel are equally alarming indicators of Burundi's natural resource trends. Total available potential resources stand at 27.8 million tons. Of this, harvesting has been steadily increasing from 5.9 million tons in 1997. It is expected to rise to 6.7 million tons in 2003.[92] According to a report of a prospective study of the forest sector in Africa by the year 2002, Burundi stands to incur a deficit of 4.2 million tons of fuel wood between demand for consumption (5.9 million tons) and the annual production (1.7 million tons). This deficit should grow in the future if the growth rate of forest areas remains lower than that of the population.

The reason for these declines is the absence of prudent management and the increased encroachment into forest areas, and the unscrupulous acquisition of forest reserves by equally unscrupulous, well-placed politicians and government officials.

Conflicts associated with land in Burundi are multiple and manifest at various levels. Nationally, there is a crisis of unsustainable land use brought about by the high incidence of population density. This has resulted in population movement to forest zones in Kumoso, north Imbo, Buragane and Buyogoma. New arrivals are pitted against original inhabitants in fierce competition for land. Natives of these areas are unhappy and hold populations from Buyenzi and Kirimiro responsible for any and all environmental decline. Additionally, high population density has resulted into over-exploitation of soil resources leading to declining productivity and competition for scarce and dwindling food products. The end result is conflict.

Competing priorities between cultivation and livestock farming cause conflicts due to incompatibility. The most notable case is to be found in the Rusizi flood plain. Farmers, especially local inhabitants, are at pains to put up with the fact that land dedicated to agriculture degrades when it is subjected

to livestock rearing at the same time. Political considerations in the demarcation of protected areas constitute another cause of conflict between the government and rural inhabitants. Rural populations have been dislodged without prompt, adequate and sufficient compensation by the government in many state-protected areas. Furthermore many of these areas have not been clearly demarcated and the population is often informed neither on the status nor of the law governing protected areas.

State seizure of land ostensibly for reasons of 'public interest' and redistributed to private individuals is yet another land-related source of grievance. The most renowned of these cases is that of Rusizi National Park, which used to be over 9 000 hectares and which was created by expropriation from the Riparian population without compensation. In 2000, the government decided to change the park into a natural reserve of 5 280 hectares. The remaining 4 000 hectares was carved up between high government officials in the country and prominent businessmen. In a belated attempt to redress the grievances of the local population, the government decided to compensate the Riparian population 20 years down the line.

The case of the Regional Development Corporation in Rumonge featured prominently in the Arusha peace and reconciliation talks on Burundi. State appropriation of privately owned land and subsequent unfair subdivision between previous owners has been a source of great acrimony.[93]

Government mismanagement of public land extends to the confusion between communal and state prerogatives on land. Communes continue to parcel out land while this is a prerogative of the Ministry for Land and Environment. The most striking case concerns public forests where communal authorities sell public trees to the private sector, effectively dislodging the local population that have planted and cared for the forest, in total disregard for their welfare.

In Burundi, additionally, the principle that "the farmer who ploughs a piece of land for several seasons becomes its owner" has led to the population's appropriation and use of land belonging to displaced persons. This leads to conflict upon the return of the original landowners. There are cases of land disputes of this nature in Rumonge, for example.

Swamps are wholly state owned. Swamp ownership by individuals, therefore, contradicts the professed government policy, more so because, often the 'owners' are government officials. This fraudulent acquisition of state-owned land remains a source of conflict.[94]

Main Environmental Challenges

The challenge facing Burundi is as much a political one as it is environmental. Pervasive and widespread practices of non-participatory environmental planning, appropriation of public land and coercive implementation of environmental conservation programmes have alienated the rural population

from the central government institutions. Increasingly, because of this bad blood, productivity of food as well as cash crops has markedly declined (partly as a result as well of the disruptive effects of the civil war since 1993). The result is that a major threat to the successful implementation of the Arusha Reconciliation and Peace Agreement (August 2000) is the high incidence of rural poverty amid a pocket of prosperity.

The development of sustainable agricultural policies with the population's involvement, government intervention to correct imperfect market structures, and a clear environmental management corpus of law and practices must be undertaken. This must be so if only for the reason that they constitute the only viable route to stemming the rapid deterioration of the both the structure and condition of the natural environment in Burundi, a critical structural fuel in the country's civil war.

The observations of this section are buttressed by the following case study, which seeks to cast state management of an economically strategic cash crop, coffee, within the broader conflict.

Coffee as a Source of Conflict

This section looks at the coffee subsector in Burundi. There are a number of reasons for this focus. Firstly, the economy of Burundi, like that of many developing countries, is based on agricultural production. Secondly, and related to the first consideration, the subsector offers the classical arena for rent seeking by a state elite with minimal external scrutiny. Thirdly, coffee constitutes more than 80% of Burundi's foreign exchange earnings. Farming coffee is labour intensive and can only continue if benefits are sufficient to the producers. In the absence of the first incentive, some degree of coercion, however subtle, is required for continued production. The state-controlled marketing and exporting agencies regulate the subsector and set producer prices with only token input of the farmers, who have no meaningful say in decisions.

Burundi is one of the most densely populated countries in the world. The country is also burdened with a rapidly growing population. It is landlocked and small, with an estimated population of six million inhabitants. Logically, competition for scarce land is a potential conflict flashpoint. But perhaps more important is the competition between food and cash crops, in this case coffee.

The ebb and flow of the conflict largely determines the demographic patterns in Burundi. Following the outbreak of the latest cycle of violence, the urban centres, especially Bujumbura, have become isolated 'Tutsistans', whereas the countryside has largely been emptied of its predominantly Hutu inhabitants. The rural population of Bujumbura, the scene of military

confrontation between rebel groups and government forces in the 1990s, has relocated to regroupment camps. Internal displacement has far-reaching implications for agricultural production, with soaring food prices and reduced production of export crops, coffee and tea. The manoeuvring latitude of the 'middleman minority'[95] has correspondingly been narrowed, exacerbating elite tensions. This was made worse by the imposition of sanctions between 1996 and 1999, imposing increased external costs on the operations of coffee exporters.

To these factors must be added the history of the crop, its introduction into the Burundi economy and symbolic significance. An addition of the colonial economic package, coffee was introduced by the Belgian trustee administration to Burundi in the 1930s. Belgian colonial policy elevated the Tutsi group in a structure resembling indirect rule, making them overseers in the activities of the natives. Thus coffee production was done by the Hutus and overseen by Tutsi local administrators. This reinforced the chasm between the Hutus and the Tutsis as subject and ruler. Attitudes and perceptions have persisted and permeated the ideology of the civil war. The government and Tutsis view the army as their last line of defence against an imagined Hutu peril. Hutus and the armed opposition in turn view with suspicion and describe the armed forces in all manner of pejorative terms. It is the same army that has been the principal agent of oppression and mass murder. Rebel groups have reportedly been waging a propaganda war against the cultivation of coffee for this reason. In the mid-1990s, rebels waged a campaign to destroy the coffee trade by inciting the people to uproot the trees so as to destabilise the government revenue base and cripple the economy.[96]

Coffee production, processing and marketing, including the crop's export, reflect and reinforce the country's ethnic divisions. The Tutsi play an almost exclusive part in the role of the 'minority middleman' and the state, effectively controlled by a cabal within this group, expropriates the earnings, leaving little trickling down the peasants' way.

Global commodity price fluctuations have made matters no easier. The near collapse of coffee prices in the world market (mid-2001) saw the lowest world coffee prices ever) has ensured that it is the primary producers' whose receipts are minimal, often to the benefit of the state. In Burundi, certain episodic outbursts of violence are attributed to the smuggling of coffee to neighbouring Rwanda for better returns and the government's attempts to curtail them.

There are some hopeful signs of progressive change, especially in the northern Ngozi province, the stronghold of coffee production. In this case, farmers and other stakeholders from Ngozi region have organised themselves into a cooperative society, including a financial credit facility to farmers in order to put to good use coffee proceeds for the benefit of the region, irrespective of the identity of the farmers. This coalition of farmers, former politicians and erstwhile

government functionaries has acted in reaction to the diversion of revenues of the region by the central government for the benefit of other regions.[97]

Distribution of coffee[98]

Coffee in Burundi is mainly grown in the north of the country, with some sprinkling in the centre. About 850 000 families are involved in the growing of the crop, which constitutes their primary or secondary source of income, depending on the ratio of their coffee trees to their food production. This income represents between 40–60% of the household cash income. Each family has an average of between 100–300 coffee trees. Overall, it is estimated that three-quarters of Burundi's population is involved in the production of coffee.

Two main types of coffee constitute the crop in Burundi. The favoured high-grade *arabica* and the comparatively less profitable *robusta*. *Arabica* thrives in northern Burundi. *Arabica* makes up over 90% of Burundi coffee exports, while *robusta*, which grows in lower altitude, comprises the rest. Whereas *arabica* is grown exclusively by smallholder farmers, who constitute 50% of the total coffee farmers, export grade *robusta* is grown on irrigated industrial plantations in the Imbo plains.

The total land area under coffee production in Burundi stood at 115 000 hectares, (representing 4% of the country's total land surface area) in 1991, with an estimated 200 million coffee tree. The conflict in the country has frustrated the collection and tabulation of more reliable statistics. It is however plausible that the total land area under coffee cultivation has declined for a variety of reasons. Low or no inputs, most important being fertilizers and insecticides, have ensured that yields have remained less than the average international yield per tree of 0.45 kilogram.

Production structures

In order to clearly understand the production of coffee, it is important to have a brief look at the institutional organisation of the coffee subsector:

Established in 1948, the *Office des Cultures Industrielles du Burundi* (OCIBU) is at the top of the pyramid of the coffee subsector. It is the government's agency charged with regulating activities in the subsector. Its remit includes formulating government policy in respect to coffee production, processing, marketing, research and training. Additionally, OCIBU organises planting programmes, distributes fertilizers and insecticides to farmers, and maintains access roads to coffee growing areas.

The development of the payment schedule is also under OCIBU, as is the payment of operators in the subsector and the collection of taxes from the revenue on behalf of the government. This role is synonymous with the

management of a stabilisation fund for the sector to offset losses when international market prices for coffee are low.

The role of OCIBU is thus broad. It also encompasses establishing quality standards and classification systems as well as monitoring of financial operations and performance of institutions in the sector. Ultimately, it becomes the owner of the final product ready for export.

The *Societes de Gestion des Stations de Lavage* (SOGESTALs) are responsible for the management and operations of washing coffee. The SOGESTALs own and operate all five washing stations in Kayanza, Kirimiro, Kirundo, Mumirwa and Ngozi. They are paid for their services through the general payment schedule as determined by OCIBU. Owing to low production and remuneration, these bodies have had to be subsidised to cover their operating losses.

The hulling operations in the coffee industry are undertaken by *Societe de Deparchage et de Conditionnment* (SODECO). They process the parchment coffee from private traders and SOGESTALs through sorting of the green coffee and bagging it for shipment. There are two SODECO-run hulling factories in Gitega and Bujumbura, with a combined processing capacity of 60 000 metric tons for semi-washed and fully washed coffee. The government, to stimulate competition, has recently licensed two small private hulling companies. These are SONICOFF and SIVCA, both of which are in operation.

Prior to structural reforms in the coffee subsector sponsored by the World Bank and the *Caisse Francaise de Developpement* between 1990 and 1996, OCIBU and the monopoly auction company Burundi Coffee Company (BCC) exercised complete control of the sector. OCIBU owned and operated the washing and hulling subsidiaries, aside from its other functions detailed above, while BCC retained the sole rights for all Burundi coffee auctions. In addition to the roles of OCIBU detailed above, the state firm played the role of financial intermediary between commercial banks and players in the subsector, borrowing on their behalf. The stranglehold on the sector by OCIBU and BCC[99] stifled competition and reduced production. Coffee proceeds attracted a levy from the government, also determined by OCIBU. The following reforms have been undertaken in the operations and structure of the subsector:

- The services provided by SODECOs and SOGESTALs were previously provided under the aegis and broad management of OCIBU. The assets of the two bodies have been transferred to a new asset management facility *Service du Patrimoine*. The new OCIBU special organ leases washing stations to SOGESTALs and the hulling facilities to the two SODECOs. It is envisaged that *Service du Patrimoine* will oversee the sale of the assets of the two bodies to private investors when the coffee subsector is fully liberalised.

- The auction market has been opened to private exporters, ending the monopolistic role of BCC. Private exporters are organised under the *Association Burundaise des Exportateurs du Café.*

The reforms have had a number of effects. First, they have widened the sources of capital for players in the industry, both domestically and abroad. This allows players in the subsector to access credit at competitive and sometimes concessionary rates. Second, they have limited the government's discretionary levy deductions, replacing them with an export tax. However, the targets set for the privatisation of the coffee subsector and the liberalisation of producer and intermediaries' prices remain largely unrealised.

Production and Adding Value

Coffee cultivation and processing is a tedious process. For *arabica* coffee, two processing pathways are distinguishable. These follow the form in which the farmer delivers the crop to the next stage of production, as either fully washed or in semi-washed form.

In the semi-washed state, farmers depulp (by hand or with manual depulpers) the harvested cherries. This requires a constant supply of fresh water for the extraction of the fruit and has pollution consequences. The depulped parchment coffee is then sold to traders. The traders sell collected parchment coffee to the SODECO hulling factories. SODECO in turn sell the parchment coffee to OCIBU who sell it to exporters on the auction market in Bujumbura. The semi-washed hierarchy thus involves five stages of transaction.

The fully washed path is shorter. Here, the farmer sells the coffee cherries immediately after harvesting to the SOGESTALs, which operate coffee-washing stations. The SOGEATALs convert the cherries into parchment and sell it to SODECO. This process has two distinct advantages. One, it lessens the work of the farmer and second it eliminates the middlemen traders.

The International Market: Players, Producers and Politics

The final coffee product requires more than just coffee bean production. Roasting, grinding and packaging are additional processes. However, importers undertake these processes, lengthening the production chain before the product reaches the consumer. *Arabica*'s terminal market is New York while *robusta's* is London. American roasters insist that for best quality, coffee has to be roasted and ground near the consumer and delivered within seven days, with the premium of 48 hours. This however, is a trade barrier excuse by traders in the consuming countries of the developed world, which could easily be overcome through the technology of vacuum packing. The American roasters' argument is consonant with the century-old opposition by the north to import value added food products from the developing world.

The beneficiaries in this arrangement have largely been American and European middlemen and roasters who hold an important place in the coffee commodity chain. Over 40% of global coffee trade is in the hands of only four companies, led by Starbucks, which holds 50% of sales in the terminal markets. Three-quarters of the roasting business in the United States, home of the world's largest instant coffee industry, is in the hands of only three roasters, with General Foods, Nestle for Maxwell House and Nescafe respectively leading the industry. This international market structure creates an oligopolistic market whose penetration by producing countries remains a daunting challenge.

The fair/alternative trade movement has emerged to reduce the length of the chain to benefit the primary producer.[100] Fair trade is based on the need for more equitable, less exploitative dealings with coffee producers. It emphasises minimum prices for inputs, credit availability at concessionary rates, long-term relationships with farmers' cooperatives where they exist, and the bypassing of middlemen. The Fair Trade initiative, however, remains a nascent developed world initiative that will take time to penetrate the complex web of intermediaries in the coffee production chain on the end of primary production and processing.

Distribution of Income

The distribution of income from the coffee subsector has until recently been determined by OCIBU. As stated earlier, OCIBU set out a payment schedule for all the players in the subsector. A commission chaired by OCIBU that includes government ministries and agencies' representatives, farmers, washing stations, hulling factories and exporters representatives now schedules the payments. The payment schedule is set out in *the grille de remuneration qualitative* that factors in production projections, export prices and sales, as well as the cost of intermediaries.

Increase in producer price in tandem with increased production and revenue has, however, not been matched. The IMF laments that

> "... Despite these important nominal increments and superior quality of Burundi's *arabica*, producer prices have typically remained below corresponding prices in neighbouring countries and have displayed a low degree of correlation with international coffee prices ... All these have eroded the incentives for coffee production at the level of farmers and have thus undermined the competitiveness of Burundi as a coffee producer and exporter. Moreover a not insignificant – and increasing – part of production is regularly being smuggled to neighbouring countries, especially during periods of relatively low producer prices."[101]

The price stabilisation role of OCIBU allowed it to reserve payment during bumper revenue harvests to guard against revenue shortfalls in times of

declined export prices. This was augmented with the European Union STABEX facility under the Lomé Convention. The excess revenue is banked into deposit accounts in the name and under the control of OCIBU. This arrangement has been abused by the government during periods of economic hardship. Thus,

> "While the financing of deficits of the ... [subsector] and the replenishment of the reserve account have been secured either through budgetary transfers or donor support, the redistribution of surplus remains an unresolved issue ... in particular, especially during periods of tight budgetary funds *surpluses have been appropriated by the government at the expense of farmers and other operators in the coffee subsector.*"[102]

The main beneficiary has been the government through OCIBU. The government's total control of the tertiary processes in regard to *arabica* through full ownership, control and operations has bred operational inefficiencies, a skewed payment system to the detriment of the producer and has indirectly contributed to the reduced levels of production.

The Role of the State

Burundi's agricultural sector is state led. Successive governments considered the coffee subsector to be strategic.[103] The reference to strategy is not limited to the crop's important role in financing Burundi's imports, but also to the fact that receipts from the crop, whose *arabica* variant from the country has long been considered by coffee auction houses abroad as one of the best, constitute a 'cash cow' uninhibited by external scrutiny. This is as opposed to official development assistance, for which the country disproportionately depended for development projects until the outbreak of the current episode of conflict in 1993.

UPRONA, the sole political party embodied the executive, legislature and judiciary, all rolled into one. The ruling elite used the party to mobilise and indoctrinate, with an overwhelming presence around the country. UPRONA became the government's local agent where coffee production was concerned, organising and mobilising peasants during the coffee production cycle. According to a Burundian who vividly remembers the period, UPRONA infiltrated and influenced local administration and spearheaded government monitoring activities of the subsector, ensuring that projected government budgetary outlays for the proceeding financial year, from projected coffee exports foreign exchange receipts, were met.[104] In addition, planning of infrastructure outlays to the producing areas was done principally because of extraction of the crop rather than for the welfare of the local inhabitants.[105]

The relationship between the government and production in the rural areas was at best tenuous during the post-independence period before the

reforms of the late 1980s. State-producer relations worsened over time, primarily because of the authoritarian, top-down orientation. As a result the agricultural policy was considered a constraint as it constituted a series of orders from above, showing a sense of omnipresent authoritarianism. Laely observes that:

> "the monopolistic state has not tolerated other forms of organisations ... there were no peasant unions or even any autonomous associations; *indeed, the rural co-operatives were always under such tight state control that they never succeeded in creating any dynamics of their own.*"[106]

The protest culture in coffee-growing areas of the northern provinces of Burundi has been attributed to the relative accumulation of wealth from agriculture and other economic activities in such areas, some of them illicit.[107] Palipehutu, which took up arms as early as 1980, was originally based in the northern provinces of Ngozi and Kirundo bordering Rwanda. The confluence of the Rwandese and the bordering population that is overwhelmingly Hutu created networks of business activities that ensured that coffee farmers on the Burundi side who could not get a good price for their crop could smuggle it across to Rwanda where prices were higher.[108] When, to curb the smuggling of coffee to Rwanda, among other reasons, the Burundi military moved into the communes of Ntega and Marangara in 1988, violence ensued, resulting in the infamous Ntega-Marangara massacres that brought home to the new Buyoya government the reality and explosiveness of pent up resentments.

The confluence of the region's agricultural renown and rebel activity warrants further inquiry. This is more so because prior to the turbulence in 1993 that proceeded the overthrow of the Ndadaye government, rebel activity begun originally in the north spreading to the rest of the country only a couple of years later. Since the Hutu majority have been discriminated against in education opportunities,[109] they were likely to be less politically conscious to the extent of being mobilised on the scale that was witnessed during the 1988 violence in the north. The logical conclusion is that rebels tapped strong but hitherto latent local grievances with respect to the government's agricultural policies generally and those specific to coffee in particular.[110] This they have been able to do because of rising levels of awareness among farmers about market information and trends.

This contention is validated by the characteristic inadequacy of market information in the international coffee environment, whose principal victim is normally the primary producer. In their study, Nkurunziza and Ngaruko[111] illustrate the skewed provision of education services in favour of the agriculturally arid and poor southern provinces at the expense of the country's northern coffee-producing provinces. Ngozi province, which ranks as a major producer of coffee, is the least privileged among the country's provinces in the provision of education infrastructure.

The logical conclusion to be drawn from these observations is that because of Burundi coffee farmers' low levels of education and limited access to and understanding of market information, the largely poor and illiterate coffee producers of Burundi have required some indoctrination and 'civic education' to be aware of their exploitation by the government. In the hope of a better economic future, the primary producers, whose economic prospects remain at the mercy of a predatory state, have been stirred to political and in some cases, armed protest in the vague hope of 'a better tomorrow'.

Nominations to the Coffee and Tea Office, a government parastatal body, are made by presidential decrees and "... can therefore be used to compensate active party members and supporters for ... services rendered".[112] Consequently, the leadership of this important position has served as a source of patronage at the political centre, alienating the stakeholders in the sector's periphery.

The common complaints recorded in many commodity dependent economies apply to Burundi's coffee subsector: the underpayment of farmers for their produce, often to the enrichment of a plethora of middlemen and elite. The close control and regulation of these sectors by the central government takes the form of taxes, expense deductions like transportation and export costs, infrastructure development levies and a host of other deductions that sometimes leave the primary producer with little more than the input costs of production and little or no disposable income.

This situation amounts to the appropriation of peasant labour. The economic compensation of primary producers is subordinated to the litany of 'expenses' incurred in adding value to the commodity for export on the one hand and exorbitant charges for inputs by middlemen who act in both directions on the other.[113]

In the case of Burundi it is observed that

> "...The lion's share of the profit from the coffee trade goes to the state and various intermediaries for which there can be no economic justification while the producer receives a little less than 35% [of the export price]."[114]

This situation is reflective of the broader patronage system that characterises the country's economy. According to the ICG, "the interaction between an authoritarian regime and the accumulation of economic benefits has been characterised by the exploitation of the elite of income from primary, agricultural and mining resources."[115] .

The overwhelming control the Tutsi elite has on the country has ensured that the structures for redistribution of national income and wealth in Burundi revolve around a Tutsi regional network. (In Burundi's political economy parlance, *Mwaro* [money], *Ijenda* [technocrats] and *Bururi* [political and military power] complement one another in controlling economic

activities in the country.) It is this powerful cabal that derailed the 1993 democratic experiment and, following the slide of the country into generalised chaos between 1993 and 1996, restored President Buyoya to power to protect its threatened interests.[116] The other regions of the country, dubbed 'the Third World' of Burundi, include Kayanza and Ngozi provinces, which produce the bulk of the country's coffee.

The 1993 the liberalisation of Burundi's politics threatened the privileged political and economic base of the country's minority, especially the Bururi Tutsi, through sweeping political and economic reforms. It is unclear, however, what reforms were envisaged for the coffee subsector. President Ndadaye had intimated reforms in the agricultural sector, including the restructuring and reform of OCIBU.[117] The intended reform threatened to cut off a major source of patronage largesse for some.[118] It is instructive to note that FRODEBU campaigned on a platform of reforms.

The strategic importance of coffee in Burundi's economy has brought with it legal sanctions on the farmers' freedom to choose what they deem to be economically more viable. Thus they cannot uproot their coffee tress as this is viewed as economic subversion and treason.[119] The result has been competition between subsistence agriculture for food and coffee cultivation for income. The country's expanding population and concomitant diminishing land resources aggravate the problem.[120]

It is reported that rebel groups and opposition political parties have participated in exhorting coffee farmers to uproot their coffee trees. Their argument is that the government uses revenues from coffee to procure arms to protect the interests of a privileged elite and not for development.[121] They further argue that the armed forces oppress the very farmers who produce the bulk of the country's foreign exchange. The 'coffee propaganda' began in the mid-1980s, its emergence motivated by unfavourable government policies and evidence that some food crops like bananas were more profitable in the long run. But the government, through the law and a 'misinformation' campaign, effectively countered these attempts.[122]

Recent anti-coffee campaigns by rebel groups appear to be a twin-pronged strategy through their mobilisation propaganda:

- to incite acts of economic sabotage on the part of the peasants and thus reduce government revenue and disable the army; and
- to incite government retaliation which would in turn justify the continuation of the rebellion and their opposition to the government.

It is difficult to assess how successful this message has been, partly because of the multiple consequences of the civil war on the agricultural sector, regional economic sanctions (1996–1999) and the policy of regroupment or the forcible relocation of rural populations into protected camps. It is difficult to

disaggregate the role rebel political messages have carried and what precise impact they have had on coffee production.

Direct manifestations of the role of coffee in the conflict have come to light in recent years. A United States agency report found that due to foreign exchange reserves shortfalls, the government had mortgaged future coffee production (tea, cotton and sesame were also mentioned as mortgaged) as payment for arms and munitions for the war. This desperate action came as the Hutu insurgency escalated and regional economic sanctions bit, depriving the government of hard currencies with which to procure arms.[123] The suspension of international financial assistance since 1993 ensured that the only remaining source of government foreign exchange was the export of coffee and, to a small extent, that of tea. The escalation of the war and regional economic sanctions frustrated the government's efforts to get the reduced coffee production to the world market.

More recently, a UN report unearthed evidence to the effect that coffee from the DRC is being smuggled to Burundi where it is mixed with and exported as Burundi coffee.[124] The UN report, undertaken to investigate the illegal exploitation of the DRC's natural resources and other forms of wealth, has firmly focused the limelight on the regional network of smugglers and illicit traders and their role in the continuation of the conflicts in the Great Lakes region.

Specific Areas of Conflict

The foregoing discussion points to two levels of conflict, direct and indirect. Indirectly, the conflict arising from the relatively low earnings of the primary producers in relation to other players in the sector is subtle because of the relative ignorance of farmers about the export price for coffee and the complicated payment system administered by the state.[125]

At the direct level, there are two forms of conflict. One, the diminishing land space imposes the temptation to return to subsistence and/or food agriculture. Because it is illegal to uproot coffee trees, farmers are faced with a situation where they place little emphasis on the production of coffee while concentrating on food crops. Additionally, scarce land increases the pressure on land resources, leading to environmental deterioration, made worse by inadequate government investment in the sector and the continuing civil war. The other form of conflict, briefly discussed above is the politicisation of the coffee subsector and its role in prolonging the conflict.[126]

Land and Land-related Issues

The problem of land scarcity and the unsustainable population growth in the Great Lakes region generally, but in Burundi and Rwanda in particular, and

its implications for conflict is now widely acknowledged. With Burundi's 2001 population estimated at 6.53 million people and growing at an estimated 3% annually, the country's population doubles every 20 years.[127] The population density stood at an average of between 260--300 people per square kilometres as of 1997 and is on the rise, one of the highest in Africa. An average peasant family in Burundi possesses less than one hectare of land.[128]

The total arable land as a percentage of the country's total land area is 44%, with the area under permanent crops taking up 9% of that. The large number of people living off the soil and the relative underdevelopment of the tertiary and service sectors [129] consign an increasing number of the country's population into competition for increasingly scarce land resources. The pressing environmental concerns in Burundi revolve around land rights of ownership and access. Closely related are soil erosion and degradation, as well as access to and exploitation of natural resources. This is the case particularly because of the intensity of agricultural activity, what with its expansion into marginal lands and into forest areas.

The challenge facing Burundi is that of mediating the competing claims of food deficit and the desperate reliance on coffee to redeem the deficit. The civil war has ensured that Burundi is transformed into a net importer of food. Thus concerns over food security have gained an entry in a country that was until the end of the 1980s food self-sufficient.[130]

Intensive farming practices offer an intermediate solution that may not be sustainable in the future because of coffee's notoriety for pollution, being the second most chemically intensive crop after cotton. Although the input of fertilizers in the coffee-growing areas in Burundi has been erratic in recent years because of the civil war, the use of fertilizers over the years has bequeathed the soil considerable residual chemical effect. This poses a potential for reduced soil productivity because of the crop's long life cycle. The dilemma is the pivotal place coffee (especially *arabica* which contributes 85–90% of the foreign exchange derived from coffee) occupies in the economy and the fact that segregating it from food crop cultivation is a near impossible task. This is because in most smallholding plots where it is cultivated, it is alongside food crops. Thus the setting up of separate coffee 'plantations' is not an option.

Marketing of Coffee and Location of Secondary Industries

The marketing of coffee is a source of tension between the identity groups in Burundi. Hutu farmers are aggrieved that the middlemen are overwhelmingly, if not exclusively, Tutsi who pay a low price for the coffee harvest.[131] The traders engage in speculative activity, buying the harvest from farmers before it is harvested and the price is fixed. In most cases farmers end up with little revenue because the traders are privy to inside and forecast information of prices in the international coffee market.[132] The trend is however changing in

some areas, for example in Ngozi, where farmers are increasingly becoming aware of the prices offered in the international market. This is responsible for the increased agitation by farmers for greater control of the resource.[133]

The location of the SODECO processing plants is a source of conflict at three levels. On one hand, a majority of the employees in the plants (and those of the SOGETALs), who earn ridiculously high salaries, are not native to the local coffee-producing areas and are in most cases from the country's south. This has bred resentment among locals and partly contributed to the violence in 1988 in Ntega and Marangara.[134]

Secondly, the costs associated with transporting coffee to the processing plants is passed on to the farmer by middlemen. These middlemen, who are Tutsis, have access to financial credit from banks countrywide unlike the farmers, (many of whom are Hutus) and are able to bear the costs.

Liberalisation of the subsector, although moving slowly, has produced a pattern of "alien and elite ownership". Farmers have not been granted the necessary financial resources nor the opportunity to co-own the processing plants, despite the fact that some farmers are able to purchase shares in the companies, which sell at about US$ 150 per unit.[135] These structural inequities leave the primary producer at the mercy of the middleman.

International Economic Environment and Domestic Political Developments

The Burundi economy and thus the country's coffee producers' welfare are inextricably intertwined with the international prices of coffee. Because of the country's over-reliance on coffee receipts for foreign exchange, the economy is susceptible to price fluctuations in the international market. This is aggravated by the fact that the country is a comparatively small producer compared to giants like Colombia and Brazil, which respectively are the leading producers of *arabica* and *robusta*. Because of its minimal production volumes, Burundi cannot therefore influence the direction of prices at the world market the way, for example, changes in global political dynamics and the weather in Brazil can.

The collapse of the International Coffee Agreement in 1989 rendered small producers, including Burundi, vulnerable to the vagaries of adverse coffee price changes in the world market. The International Coffee Agreement (ICA), the longest-established international commodity-regulating organisation, was formed in 1940 to stem price volatility arising from speculation and sales volume in the world market. It brought together both producers and consumers (the major producers being Brazil and Colombia and the major consumers the United States and European countries) and worked out production and sales quotas for the producing countries.

The gradual disintegration and eventual collapse of this organisation was partly responsible for the collapse of world coffee prices in the mid-1980s.

The effects of this on the economy of Burundi were adverse and have been observed to have been partly responsible for the disturbances during the second half of that decade.[136]

Failure to renew the agreement in 1989 is partly attributable to the waning and eventual collapse of Cold War politics. The United States' interest in the agreement was part of its Cold War zero-sum competition for producer country allies with the defunct Soviet Union. It hoped that by stabilising coffee-producing countries' receipts from the crop export by playing a role in shielding them from world market price volatility, they would be less vulnerable to 'poaching' by the Soviet Union. With the diminishing Cold War discourse in the late 1980s, the ICA's strategic relevance turned into an unjustifiable loss to the powerful coffee-roasting lobby on Capitol Hill. Additionally, discontent was growing among some major producers that the main winners in the scheme were Brazil and Colombia, that some smaller producers had taken advantage of the scheme to surpass their allotted quotas and had in fact been exporting to East European countries. The ICA collapsed in 1989, the victim of a changed and changing world.

Between 1986 and 1992, the price of coffee dropped by 75% and Burundi's average growth in export revenues correspondingly dropped from 3.3% for the period 1965–1980, to -1.9% for the period 1980–1990. This was thus a period of heightening tension between the increasingly impoverished and neglected rural population and the privileged urban elite. Nkurunziza and Ngaruko's "predation, repression and rebellion" model helps in explaining the outbreak of the 1988 Ntega-Marangara violence in relation to the shrinking of the government's clientalist reservoir. The model amply illustrates the positive correlation between state predation and declining government capacity owing to a shrinking prey. During periods of declining GDP per capita, predation rises. This in turn provokes rebellion by the peasants. The government reacts with predictability, heavy-handedly putting down the rebellion.[137]

The relevance and place of international financial aid is pertinent in this discussion. The export revenue deriving from coffee in Burundi provides less than half of government development and recurrent expenditure estimates. Multilateral and bilateral donors and development partners have filled this gap. In the period between 1989 and 1991 more than half the finances spent by the Burundi government came from these sources and international non-governmental organisations.[138] This would explain the relative closeness between Burundi peasants and these organisations as contended by Laely.[139] External development financing mainly put up the infrastructure projects built during the Bagaza period.

The twin phenomena of the Burundi government's disproportionate reliance on external financial receipts and the country's rural population's near indifference to central authority is made more compelling when one looks at the post-1993 events and the 'creeping coup' that came to pass in

July 1996. The scaling down of international financial assistance following the derailment of democracy in 1993 and its eventual freeze in 1995 following the initiation of the regroupment policy placed the Burundi government in a desperate economic and political position both internally and externally.

If the government's back was to the wall with the 1995 freeze of external financial assistance and support, regional economic sanctions (1996–1999) nearly brought it to its knees. Its only recourse was an internal economic environment long neglected and a cash crop whose producers have remained on the margins of government priorities. Salter rightly argues that the credibility of region's sanctions against Burundi rested squarely with their ability to prevent it from exporting its coffee crop.[140]

When Burundi found a crevice in the otherwise well-intentioned regional initiative, it broke through, selling its coffee through Mombasa via Tanzania initially and later through Rwanda as Rwandan coffee. And when these avenues proved expensive and unsustainable, Burundi switched to the Zambian lake port of Mpulungu as the gateway to Durban in South Africa.[141] As indicated earlier, with the escalation of the civil war, defence expenditure became an overriding priority and finances for arms purchases had to be found if the government was decisively to defeat the rebellion through its chosen strategy – in the battle field. It meant the government could even mortgage future coffee receipts in exchange for desperately needed arms.

The Ausha Peace and Reconciliation Agreement is in consonance over the need for reforms in the coffee subsector.[142] However, and perhaps because of the broad scope of that agreement, its recommendations are not only unclear and unfocused, they ignore other related structural impediments to increasing the production of coffee and payments to the producers. Export diversification is one possible solution to getting out of the country's over-dependence on coffee for foreign exchange. The coffee subsector is in need of reforms and restructuring to make it more transparent and responsive to external as well as internal stimuli. There is, in the same vein, the need for a rapprochement between rural and urban development priorities on the one hand, and between the centre and the periphery on the other. It is only these realignments in the social and economic relations within Burundi that will make it possible to mediate satisfactorily the competing claims of peasants' demands for better payment for their produce and government security and development priorities.

The reforms in the coffee subsector, which have so far been only modestly successful, should continue as soon as a conducive opportunity for their implementation is at hand. The seemingly deliberate attempts by the authorities to delay reforms in the sector will only serve to dim the prospects of coffee as a 'strategic sector' in the economy. The IMF crystallises some of the concerns woven in this chapter, pointing out the major stumbling blocks to privatisation, which include:

- The assets management entity of OCIBU, *Service du Patrimoine,* lacks the necessary legal authority.
- There is a lack of coordination between the service in charge of public enterprises and the inter-ministerial committee on privatisation.
- There are delays in the enactment of privatisation-enabling legislation by the government.
- A bad state of domestic savings exists and thus a shortage of financial means in the private sector and thus of private buyers.
- Insufficient incentives persist under the prevailing remuneration and price setting policy.[143]

The foregoing points to two major observations. Clearly, the subsector's legal and organisational framework is without teeth and is open to abuse. The financial status of the subsector is not up to the task of providing either the necessary motivation for increased productivity or the additional capital investments to make it more efficient and fair.

Part of these bottlenecks stem from the government's reluctance to relinquish its direct control of the coffee subsector, which it rightfully views as strategic. However, in order to stimulate production, which has stagnated in the last ten years and provide producers with the incentives, the restructuring of the sector to give farmers more say is not only necessary, it is imperative.

The disproportionate government investment in the service and industrial sectors at the expense of the agricultural sector demands immediate redress. Although the industrial and service sectors have grown marginally since independence, they remain the near-exclusive preserves of a small *petit bourgeoisie* within the country. There is need for equity in the operations of the state.

The suffocating state omnipresence has had a negative effect on Burundi's coffee's subsector. A meaningful broadening of the range of actors and players to include the producers in policy and decision making, as well as greater transparency and accountability in the operations and management of the subsector is needed.

Although the EU market offers hope for the future growth in demand for coffee, fierce competition is expected in the global coffee markets and price-dip vulnerability of producers is set to continue because of the structure of the whole coffee chain at the international level and market saturation in the key United States market. Similarly, and partly because of the first observation, intra-African coffee producers' competition for a share of the global market will continue. The viable option is for regional producers to pool production to enhance their bargaining power in the global markets. Here, regional cooperation offers a viable promise.

Regional cooperation will need more attention. The revitalised East African Community (EAC) and the Southern Africa Development Community

(SADC) are two schemes that offer the best chance yet to achieve this. Although Burundi's application for EAC membership is with the regional body, it remains to be approved. Regional integration will provide much-needed economies of scale and thus efficiency and cost-effective production, improving the earnings of the member countries' populations. Economic diversification, furthermore, will serve to render member countries less vulnerable to the vicissitudes of the international market for primary products. Burundi clearly stands to gain from these potential benefits.

Conclusion

This Burundi country study has analysed the country's conflict and explored the peace process. Emphasis, indeed the focus, has been on the contribution of ecological variables in the conflict and how these have been appreciated or ignored in understanding the broad contours of the conflict and how best to factor them into the search for peace.

The emergent picture is disheartening. Not only has there been an insufficient appreciation of ecological variables in the conflict in Burundi; there have been only token considerations of these in the construction of architectural plans for peace. Stewards of Burundi's predominantly agricultural-driven economy have cleverly concealed some of the primary structural deficiencies that have been at the forefront of motivating the continuation of the conflict. At the centre of this state of affairs are the parochial and self-interested impulses of perpetuating and expanding elite privileges at the expense of the bulk of the country's population.

As noted in the introductory chapter, politics has dominated discourses about the conflict in Burundi without sufficiently appreciating the essence of politics: who gets what, when and how. Underlying this appreciation is the equally valid truism that politics arises from, among other things, scarcity.

Burundi has been ruled by a political-military oligarchy that tightly controls the state and appropriates all decision making without recourse to citizens' demands and desires. Where the majority of the citizens' lives are intertwined with their land and its resources, it need not be emphasised that their demands will invariably be ecologically linked. In this respect the successive Burundi governments have resorted to coercion, repression, and violence in addressing citizens' grievances.

At the centre of the conflict in Burundi are unjust structures, among which are the ecological management policies instituted by the country's various administrations. As a result, and to find a comprehensive solution to the country's conflict, *settlement* of the conflict is insufficient; *transformation* must remain the overriding goal.

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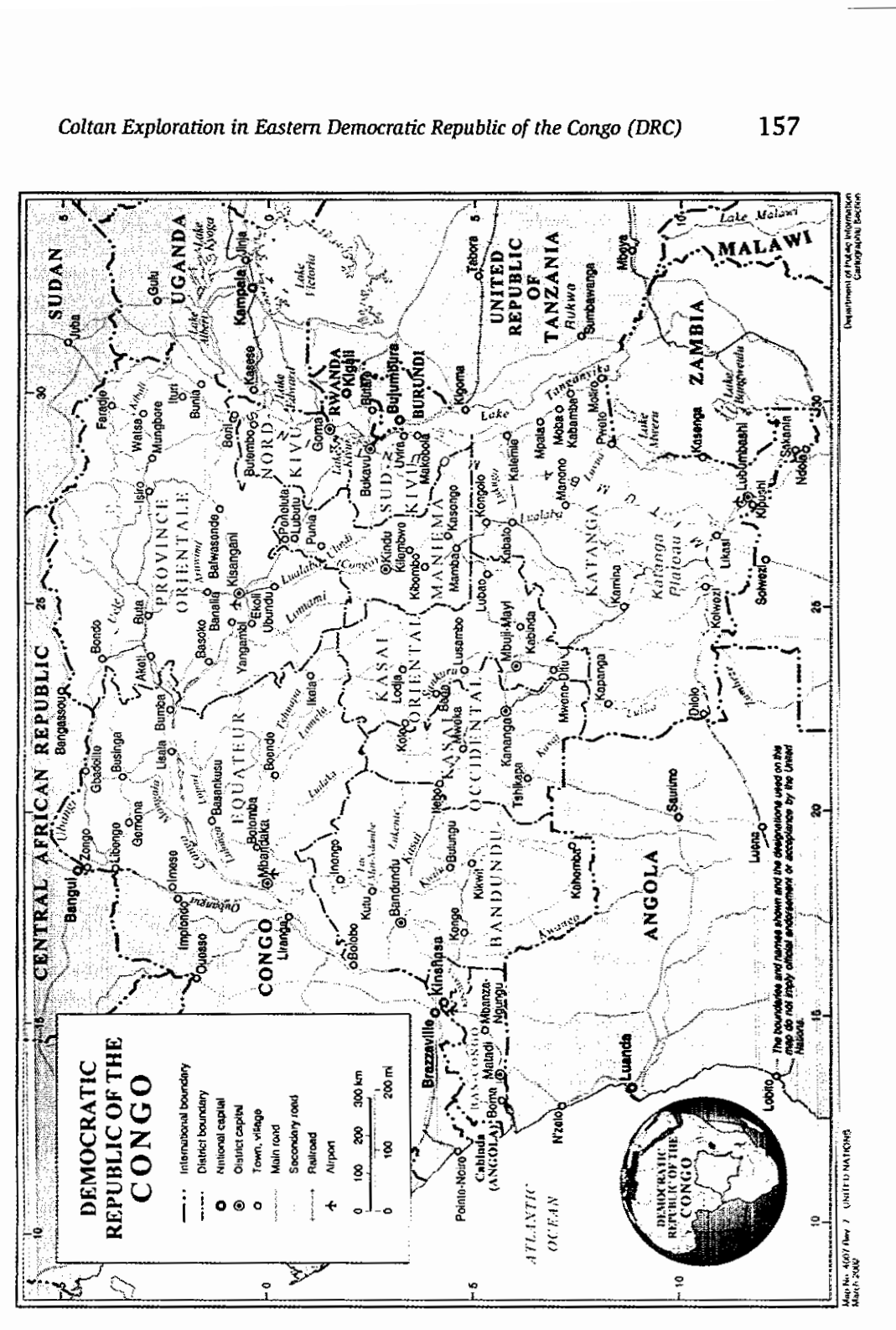
116 Ibid; Ngaruko & Nkurunziza, op cit. The latter authors talk of the 'privatization' of the state to serve the interests of some *overlapping networks*. (emphasis mine).

117 Interview with a former OCIBU departmental head in charge of pricing, Nairobi, 3 July 2001.
118 According to the International Crisis Group respondent cited above, one of the priorities of the Ndadaye administration was the streamlining of the operations in the coffee subsector to ensure that farmers, overwhelmingly Hutu incidentally, and from among whom FRODEBU derived a larger share of its constituency, received their just due from their coffee produce.
119 Interview with a former OCIBU departmental head in charge of pricing, Nairobi, 3 July 2001.
120 Report of Committee IV Reconstruction and Development, Arusha Peace and Reconciliation Agreement for Burundi, par 3.3.1.
121 This claim has been repeated by many respondents. Virtually all respondents interviewed by the writer made the connection between expropriated coffee revenue and the government's defence budget. Clearly then, there is widespread perception that this is the case.
122 Interview with a Burundi agriculture graduate student in Kenya, 3 July 2001, Nairobi.
123 See review of the report July 1999 United States Bureau of Intelligence and Research in Arms trade fuel conflict in Africa, *The East African*, Nairobi, 5 September 1999.
124 United Nations, S/2001/357, op cit.
125 This is however changing, as coffee prices are now, as opposed to in the past, more available and accessible to farmers. Interview, ICG political analyst, op cit. However, the filtering and 'noises' along the chain as illustrated by Love above effectively ensure that primary producers cannot obtain timely, accurate and concise and sometimes relevant information.
126 Aside from the mentioned report of the US Bureau of Research and Intelligence, reports are widespread of rebels imposing taxes on the peasants to foot war-related maintenance expenses. Part of this is paid from revenues farmers derive from coffee, which constitute the major source of peasant farmers' disposable income.
127 Economist Intelligence Unit, op cit.
128 Dupont, op cit.
129 Economist Intelligence Unit, op cit. The sectorial ranking as a percentage of GDP is as follows; agriculture, 46%, services 37.7%, industry 16.7%.
130 S R Weisman, *Preventing genocide: Lessons learned from international diplomacy*, United States Institute of Peace, Washington DC, 1998.
131 Lemarchand identified the marketing of coffee as a source of conflict between the two groups in his response to this study's questionnaire.
132 Interview with a Burundian living in Kenya, 3 July 2001, Nairobi.
133 Interview with *Banque Nationale de Developpment Economique* employee, op cit.
134 Interview with former OCIBU employee in charge of the Department of Pricing who worked for a time in the Ntega Marangara region shortly before the violence.
135 Ibid.
136 Dupont, op cit.
137 Ngaruko & Nkurunziza, op cit.

138 United Nations Development Programme, op cit. This was more than the average for sub-Saharan Africa, which stood at 7.8%. This averaged US$ 300 million annually and was responsible for over 80% of total investments.
139 Laely, op cit.
140 Mthembu-Salter, op cit.
141 Ibid.
142 Arusha Peace and Reconciliation Agreement for Burundi, Arusha August 2000, Annex IV, Report of Committee IV: *Reconstruction and Development*, Sections 3.2.3, 3.3.5, & 3.5.3. The last section calls for increased share of the coffee price on the international market to farmers to boost cash incomes for rural Burundians.
143 International Monetary Fund, Burundi – recent economic developments, op cit.


DEMOCRATIC REPUBLIC OF THE CONGO
International boundary
District boundary
National capital
District capital
Town, village
Main road
Secondary road
Railroad
Airport
0 100 200 300 km
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CENTRAL AFRICAN REPUBLIC
SUDAN
UGANDA
RWANDA
BURUNDI
UNITED REPUBLIC OF TANZANIA
ZAMBIA
MALAWI
ANGOLA
CONGO
ATLANTIC OCEAN
Lake Victoria
Lake Tanganyika
Lake Mweru
Lake Malawi
Lake Albert
Lake Kivu
Lake Edward
Lake Bangweulu
Lake Kivu
Lake Mweru
Kinshasa
Brazzaville
Luanda
Lobito
Kigali
Bujumbura
Kampala
Dodoma
Mbeya
Kigoma
Tabora
Kasanga
Lubumbashi
Kolwezi
Likasi
Kananga
Bandundu
Mbandaka
Bangui
Juba
Gulu
Jinja
Kisangani
Bukavu
Goma
Uvira
Kalemie
Mpala
Mbala
Kabambare
Pwani
Mosiro
Sumbawanga
Kasese
Butembo
Bunia
Iturl
Watsa
Mungbore
Faragio
Bondo
Buta
Aketi
Bumba
Lisala
Businga
Gemona
Libongo
Zongo
Gbadolite
Bangassou
Ouesso
Impfondo
Olmese
Mbandaka
Boende
Ikela
Lodja
Kole
Lusambo
Kabinda
Mbuji-Mayi
Kananga
Tshikapa
Kapanga
Kamina
Likasi
Kolwezi
Solwezi
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Mbeya
Sumbawanga
Dilolo
Saurimo
Luena
Kahombo
Kikwit
Bandundu
Inongo
Boloko
Kutu
Lirangu
Bolomba
Basankusu
Bumba
Buta
Aketi
Bondo
Basoko
Banalia
Balwasonde
Kisangani
Yangambi
Ekoli
Ubundu
Punia
Lubutu
Pondoluta
Bukavu
Uvira
Makobola
Kindu
Kilombwo
Kibombo
Mambasa
Kasongo
Lusambo
Bokoro
Ilebo
Bulungu
Kikwit
Kenge
Kinshasa
Mbanza-Ngungu
Matadi
Boma
Cabinda (ANGOLA)
Pointe-Noire
N'zeto
Luanda
Lobito
Luena
Saurimo
Dilolo
Kolwezi
Likasi
Lubumbashi
Kasama
Mpika
Ndola
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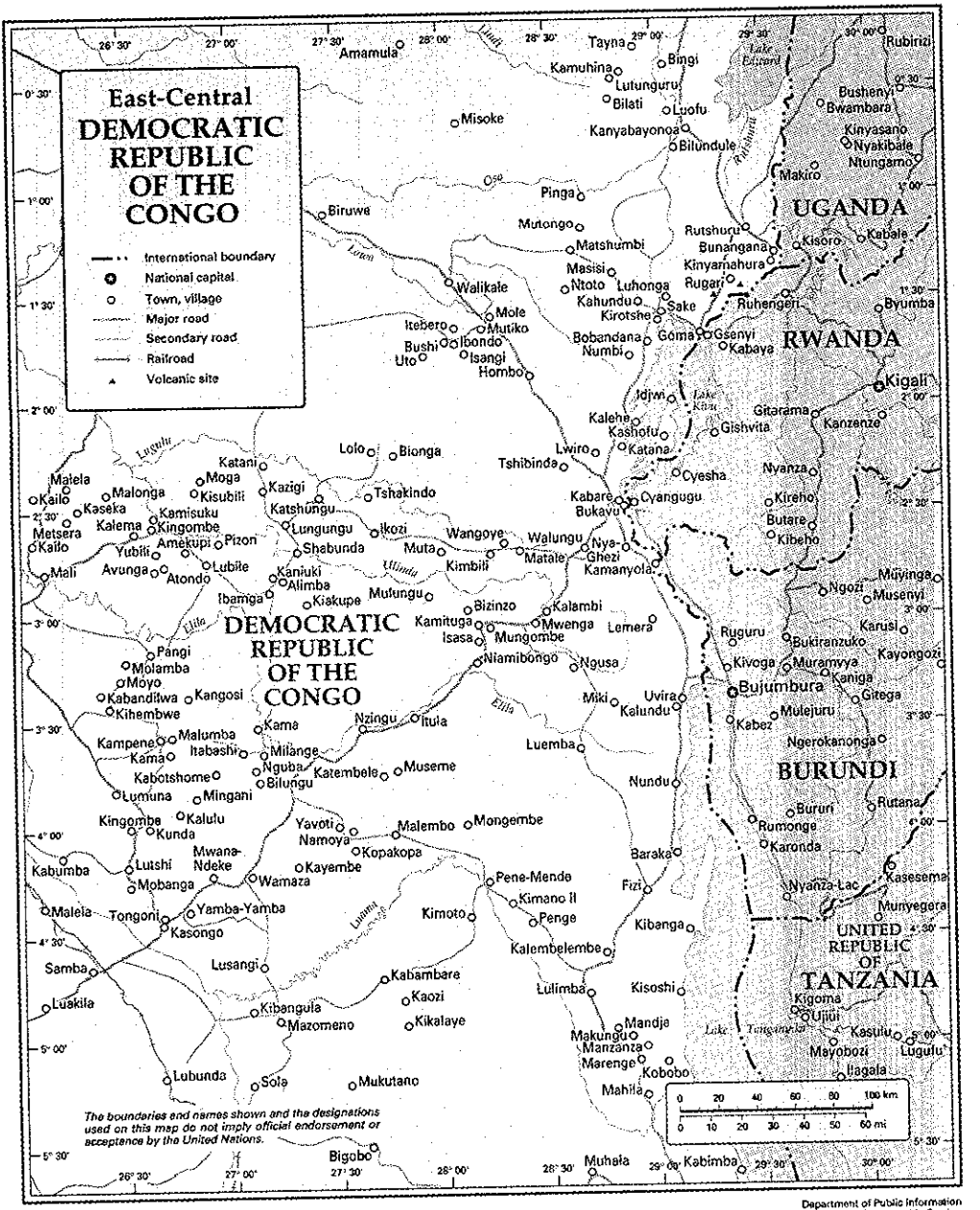

Map No. 4061 UNITED NATIONS
June 1998

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Chapter Four

Coltan Exploration in Eastern Democratic Republic of the Congo (DRC)

Celine Moyroud and John Katunga

Introduction

Until the flurry of recent peace initiatives, most importantly the Inter-Congolese Dialogue that ended inconclusively in Sun City, South Africa, and the July 2002 agreement between the Democratic Republic of Congo (DRC) and Rwanda, the DRC was in the midst of one of the most sweeping and wide-ranging conflicts in post-colonial Africa. Despite these agreements and the engagement of the United Nations through a monitoring mission (*Mission de l'organisation des Nations Unies au Congo*, or MONUC), peace is not yet secure in this vast country. At the height of the war the conflict developed an international character, bringing in many regional actors, defying regional and international mediation. The DRC now ranks 152nd in the UNDP Human Development index of 174 countries, despite the existence of considerable natural resources, such as diamonds, hydroelectric power, wood and strategic minerals.

In particular, coltan – a combination of Columbium-tantalite – is among the strategic minerals found in the Congo and forms the basis of a high-tech global commodity chain. With 80% of global coltan reserves located in Africa, most of it in the DRC, a number of analysts have argued that international demand for the metal has become one of the driving forces behind the war in the DRC and the presence of rival militias.[1] In this sense, coltan has come to be identified as one of the major resources plundered from the DRC by Congolese rebels and their allies, Rwanda and Uganda.

The illegal exploitation of coltan in the DRC is at the core of this chapter as it seeks to assess the possible causal relationship between the exploitation of natural resources and conflict manifestations in this country. For a number of practical and analytical reasons, although coltan is present in most parts of eastern Congo, the chapter will primarily look at coltan extraction and exploitation in North and South Kivu provinces. From the start the research team assumed that coltan was not a root cause of conflict in the DRC but, rather, a conflict-sustaining or aggravating factor that has contributed to conflict within the larger conflict system operating within the DRC.

The plundering of Congolese resources has formed a recurrent parameter throughout the history of the DRC and its successive violent conflicts. This is particularly true of the current situation where the illegal exploitation of forests and mineral resources now occurs at an alarming pace.

Background to the Conflict

From 1874–1908, the DRC was known as Congo Free State, then a private concession of King Leopold II, King of Belgium. In 1908 the DRC became an official colony of Belgium. It was not until June 1960 that the DRC became independent, with Patrice Emery Lumumba and Joseph Kasa Vubu, respectively as prime minister and first president. Following the assassination of Lumumba shortly thereafter, the country experienced a series of rebellions and secessionist movements sometimes with the direct encouragement of external actors. Shortly after the second parliamentary general elections Colonel Mobutu Seso Seko successfully organised a coup and assumed power, with the support from United States, in the newly renamed Zaire. He remained in power for 32 years. In 1997 the increasingly corrupt and despotic regime of Mobutu was overthrown by an alliance nominally under the leadership of Laurent Desiré Kabila and strongly backed by a number of other governments. Laurent Kabila was subsequently assassinated in January 2001 and replaced by his son, Joseph Kabila, as president of the DRC.

The DRC has thus been engaged in many wars since its independence in 1960, most of which are linked to the external exploitation of its immense natural resources – initially dominated by the immense copper wealth to be found in the Katanga province in the south. The plundering of Congolese resources remains one of the constant parameters in the analysis of the various violent episodes that have moulded the DRC state throughout its history – from the slave trade, to the Mobutu predatory regime, from King Leopold II's exploitation of rubber for the Belgian colonial system, to copper shortly after independence and coltan in recent years.

The recent disruption of the Congo predominantly affecting the eastern part of the DRC began with the exodus of some 1.2 million Hutu refugees across the border from Rwanda, following the capture of Kigali by the Tutsi-led Rwandan Patriotic Front in July 1994. Among the refugees that fled into Zaire at the time were many members of the defeated Rwandan army (*Forces armies rwandaises* or FAR) and Hutu militias (the *Interahamwe*) who had perpetrated the mass killing of some 800 000 Tutsi.

The sudden influx of refugees into Zaire created a new security risk along the border between the DRC and Rwanda, as it altered the existing demographic dynamic and ethnic balance in the eastern part of the Congo. In this sense, it can be argued that the refugee crisis of 1994–95 exported the

Rwandan ethnic and political conflict to Zaire and greatly contributed to the further escalation of the conflict in the DRC.

Ethnic clashes were not new to the Kivus. During the early 1990s a number of clashes had occurred along the eastern border between Zaire and Rwanda, Burundi and Uganda, primarily between communities of Tutsi origin (Banyamulenge) resident in Zaire and local communities of other ethnic origins. Some clashes were also reported in 1993 in the Masisi region in North Kivu, although their primary motivation might have been economic rather than ethnic.[2] Zaire's internal conflict dynamics were thus reinforced by the influx of the large number of Rwandan refugees and armed Hutus, exacerbating tension between Hutus and Tutsis in North Kivu, as well as between the local population and the Banyamulenge Tutsis of South Kivu. Many localised conflicts between various communities (such as Hema/Lendu/Ngiti in the Orientale Province, Banyamulenge and Bembe/Fulero/Vira in the South Kivu Province) also emerged.

The war in Zaire intensified in the autumn of 1996 between the Zairian forces of Mobutu and the Alliance of Democratic Forces for the Liberation of Congo-Zaire (AFDL). At the time the AFDL, a rebel movement, was led by the late Laurent Desiré Kabila and supported by Angola, Rwanda and Uganda. The AFDL was initially formed as a response to plans by the central government to take away the Zairean citizenship of the Banyamulenge, at the time when President Mobutu tried to tap into local ethnic resentments in order to shore up his influence in the east. The announced restrictions on the peoples of Tutsi descent – who had lived in the DRC for generations – acted as a major triggering event and provided the opportunity to recruit an armed rebel movement that galvanised the Tutsis and other groups in opposition to Mobutu's unpopular government in Kinshasa.

Kabila received direct and indirect support from neighbouring countries, including Angola, Uganda, Burundi, Tanzania, Zambia and Eritrea, while the Rwandan military forces prominently provided aid and direction to the rebellion that included Tutsis and other discontented groups. Clearly, Rwanda's primary rationale for its support to the rebellion was to press into eastern Zaire in order to rid the area of all *Interahamwe* and ex-FAR forces who had fled Rwanda after the genocide but continued to create instability in their home country. Rwanda had objected to Mobutu's policy of tolerating the Hutu militant camps.

This new wave of rebellion most certainly added another dimension to the conflict in the DRC that, from its original focus on the east, developed into a national war of rebellion aimed at the overthrow of Mobutu's regime in Kinshasa. The campaign of the AFDL eventually proved successful and, in May 1997, its troops took over Kinshasa, shortly after Mobutu fled the country. A victorious Laurent Kabila soon announced that Zaire would henceforth be known as the Democratic Republic of Congo.

This is not to say that more ethnic clashes and other episodes of mass killings did not take place in the eastern parts of the country during the AFDL's advance on Kinshasa. In October 1996, attacks by Tutsi-led militias supported by the Rwandan army on Hutu refugee camps created further refugee flows. While some returned to their home country, large numbers – and, in particular, armed Hutu insurgents – marched further into Zaire and became victims of the militias fighting under the flag of the AFDL.

In August 1998, fighting erupted again in the northern, eastern and western parts of the DRC, this time between the Congolese forces under Laurent Kabila and several rebel factions. Unlike previous episodes of violence in the DRC, this campaign soon dragged in a number of other countries as each side gained support from allied governments in neighbouring or nearby countries. In particular, Angola, Namibia, Zimbabwe, Sudan and Chad initially backed Kabila, while Rwanda and Uganda had been aiding the rebel factions. Although Sudan, Chad and Namibia have subsequently withdrawn their troops from Congolese territory, this phase of the war saw the dramatic escalation and regionalisation of conflict and polarisation in the central Africa region.

The fighting challenged the central government. The corruption, cronyism and nepotism so typical of Mobutu's Zaire had also come to characterise Laurent Kabila's regime. Some of the discontent of the rebel leadership – made up of disillusioned military officers among others – also appeared to relate to Kabila's decisions regarding the promotion of key military commanders. In addition, the relations between Kabila and the governments of Rwanda and Uganda had also begun to turn sour, as they felt that he was unable to pacify rebel movements based in the eastern Congo. Although originally denied by Rwanda and Uganda, it soon became evident that the two countries had started working with the new rebel forces, with the intention to create a buffer zone in the highly volatile eastern Congo in order to contain the continuing problem of insurgencies into north-west Rwanda and north-west Uganda from the Congolese territory. In this context, the claim was made by Rwanda that Kabila was not containing the Hutu *Interahamwe* but, in fact, contributing to their arming and training.

By mid-1999, the rebel movement had managed to capture one-third of the DRC, thereby installing a new balance of power in a country which was now divided into certain occupation zones. The rebel movement that had formed a political party to present their demands (e.g. *Rassemblement Congolais pour la Democratie*, or RCD) split into three main factions in June 1999, supported by Rwanda and Uganda. In particular, they differed in terms of their willingness to pursue negotiations or to continue fighting. Moreover, the rapid military gains by the rebels – especially by August 1998 – prompted a series of peace initiatives, which provided the background for the signature of the Lusaka Accords of July 1999, currently being implemented in the DRC and the region through various additional agreements and instruments such as MONUC.

Key Factors in the Conflict

From a general perspective, the post-Cold war conflicts in the region of central Africa and, in particular, in the DRC, have come to be associated with periods of domestic, economic and political liberalisation and to reflect the impact of rapid democratisation in weak states.[3] Many developing countries may be ill prepared for the political tumult and economic stresses caused by global trends such as rapid conversion to a market economy and democratisation, reawakened ethnic identity, etc, which the post-Cold War era unleashed. In this sense, these characteristics form what the conflict analysis literature has come to describe as background conditions, namely fundamental (economic, environmental, demographic, historical, etc) circumstances which can make a society vulnerable to violent conflict.[4]

Proliferating conflicts in central Africa also reveal how internal conflicts can generate armed forces that, in the absence of effective national and regional conflict settlement mechanisms, can export as well as nurture violence in neighbouring countries. For instance, this phenomenon was observed in 1994–95 in the DRC, during the massive influx of Hutu refugees who had been pushed out of Rwanda after the genocide. While the *Interahamwe* and ex-FAR forces were continuing to launch insurgencies into Rwanda in order ultimately to reinstate a Hutu government, their presence in the refugee camps also had a negative effect within Zaire and led to renewed internal ethnic clashes and hatred. In this sense the impact of the presence and engagement of third parties in the territory of the DRC will prove a critical factor for the lasting resolution of conflict within the Congo.

Closely related is the realisation of the limited sense of regionalism in central Africa and absence of functioning conflict prevention and mediation at an interstate level. The second wave of violence in 1998 brought this particularly to the fore, in the form of an international trans-state conflict across several borders. This development occurred despite the fact that most of the central African countries share links through commerce, sometimes a common French or Belgian colonial and linguistic legacies and political cultures.[5] Certainly, the lack of effective regional interstate mechanisms must have proved a contributing factor in the further escalation of conflict in the DRC in 1998, as well as the regionalisation thereof.

Other Causes of Conflict

Some analysts argue that the basic cause for the two successive conflicts in the DRC in 1997 and 1998 rests with the deterioration of the authority and reach of the Zairian state in the eastern parts of the country as a result of the corruption and mismanagement of the regime of Mobutu.[6] These factors

undeniably left a political and security vacuum that was in part filled by two successive rebel movements. Additional aggravating factors include arms proliferation and the instrumental exploitation of ethnicity, often resulting in ethnic alliances, both at the country level and in the regional context. Yet these were exacerbated by a series of other factors, the first of which is the inflows of refugees in 1994–1995. Not only did this influx threaten the existing social, ethnic and political balances, but also provided fertile breeding ground for radical groups preparing the overthrow of the neighbouring government, while itself becoming the target for raids by the army or militias. The Rwanda-Uganda armed skirmishes in Kisangani during 2001, as well as their current heightening differences, can also be seen in this light.

Neighbouring states have shared, as well as clashed over, interests, resulting either in cooperation or competition, for instance over the exploitation of natural resources and, in particular, the degradation thereof. In particular, interstate conflict becomes most likely when adjacent countries harbour hostile refugee communities (e.g. Zaire after the refugee crisis in 1994–95) or openly support armed opponents to, or vocal critics of, the government (e.g. Rwanda/Uganda through their support to the rebel movements in 1998). Thus, in a situation of internal conflict in which a neighbouring country overtly or covertly interferes in a partisan way, escalation – or even the horizontal spread of conflict – is almost inevitable, as was the case in the DRC.

In a situation of a breakdown of state authority (as experienced by the former Zaire as a failure of governance during Mobutu's reign), a number of informal and illegal high-profit economic activities including arms sales, drug trafficking, illegal exploitation and trade of valuable commodities such as diamonds, natural resources develop and increase. Over time those engaged or dependent on these activities lose all interests in peace. Indeed, such illicit economies may develop into 'war economies', which thrive upon, and support conflict and may even take on destabilising regional dimensions, especially when economic gain can be made, for instance in the form of extraction and exploitation of natural resources. This is particularly evident in the DRC. Following the refugee crises in the region during 1994–1995, parties to the conflict (and especially neighbouring countries) have tried to gain access to the large natural resources of the DRC through their presence and engagement in the territory of the Congo.

Peace Initiatives

Although the lack of effective regional conflict mechanisms characterises central Africa, the successive conflicts in the DRC and their further escalation into the region elicited many ad hoc and informal diplomatic mediation initiatives to put an end to what had, by 1998, become an unprecedented

regional conflict. Most of these initiatives were African-led efforts launched by groups of nearby states, influential heads of state, or operational subregional organisations, outside central Africa. The UN, western governments, and international non-governmental organisations (NGOs) also attempted to bring their influence and capabilities to bear.

The rapid military gains of the rebels in August 1998 prompted a variety of peace initiatives at the very outset of the fighting, with the primary aim to establish a ceasefire. None of these initiatives came directly from central Africa but rather emerged from such diverse actors as the OAU, Libya, or the NGO Sant'Egidio. Most importantly was the active and sustained involvement of the Southern Africa Development Community (SADC), which feared that the conflict could spill over into a region-wide war.

This is not to say that SADC's mediation process was a smooth enterprise. Different approaches were indeed in contention among different SADC member states, while reflecting their respective national interests and allies.[7] Eventually Zambian President Fredrick Chiluba was appointed principal mediator and a first series of meetings were organised in1998, without much success, as either Kabila or the rebels alternatively refused to attend.

SADC persisted and eventually, in July 1999, the Lusaka Accords were signed by the Congolese government, rebel groups and the states which had been supporting the various Congolese sides, namely Angola, Zimbabwe, Rwanda and Uganda. The agreement focused on the following building blocks:

- establishment of a cease-fire;
- freezing of the territorial control of all conflict parties and subsequent withdrawal of all armed groups operating in the territory of the DRC;[8]
- deployment of a UN peacekeeping force in the DRC;
- establishment of a joint military commission made up of African countries to monitor the implementation of the agreement as well as the disarmament of the *Interahamwe* militia; and
- initiation and setting up of the Inter Congolese National Dialogue, aimed to bring about a new political order in Congo and based on the participation of the Congolese armed groups, the non-armed political opposition to Kabila's government and representatives from civil society (or so-called *Forces vives de la Nation*).

Although the signature of the agreement in the summer of 1999 constituted the first real prospect for peace in the DRC, the Accord was only the first step toward the settlement of the conflict, both regionally and domestically.

The signature of the Lusaka agreement was followed by some 18 months of deadlocks and continued armed engagements between its signatories, all of which came to a sudden end with the assassination of President Laurent

Desiré Kabila on 16 January, 2001. The late president had indeed systematically obstructed the implementation of every feature of the Lusaka agreement, which he came to see as unfavourable. In this sense, his replacement by his 29-year-old son, Joseph Kabila, gave new hope to the peace process, both from a national and regional perspective.

The emergence of a new window of opportunity for peace was reflected in a number of positive signs from both the DRC's government and the international community. For instance, the international community immediately recognised the new president, primarily in order to invite him to break with the policies of his father and to implement the Lusaka Accords. Moreover, Joseph Kabila agreed to join the Inter-Congolese Dialogue facilitated by Sir Ketumile Masire, former President of Botswana, and welcomed the quick deployment of the UN military observer mission for the DRC (MONUC). The UN Resolution 1341 of 22 February 2001 confirmed the above, as it adopted a new concept of operations for MONUC, and confirmed its commitment to disarming the remaining 'negative forces'.[9] Finally, the appointment of Brigadier General Mjuki Mwanyiki of Kenya at the head of the Joint Military Commission (JMC) revived hopes for effective plans for disengagement and disarmament.

Although MONUC subsequently made sterling progress, the main stumbling block was lack of progress with the Dialogue. Painstaking preparations eventually led to extended talks in Sun City in South Africa during the first months of 2002 – but the results were a disappointing partial agreement between Kabila and the majority of the participants, but excluding the RCD-Goma and key internal parties. Amidst continued fighting in the east, South African president Thabo Mbeki eventually secured an agreement on 20 July 2002 between Kabila and Rwandan leader Paul Kagame that appeared to reinvigorate the Lusaka Accords and pave the way for an inclusive settlement.

Many challenges still face the Lusaka ceasefire signatories, and the international community, in implementing the Congolese peace agreement, namely:

- The effort to disarm the non-Congolese armed groups, which destabilise the region from their Congolese bases. A successful strategy of disarmament, demobilisation, reintegration or resettlement of these armed groups remains critical to the effective implementation of the Lusaka agreement, as well as the establishment of lasting peace in the DRC. These groups continue to provide a rationale for the conduct of counter-insurgency operations by neighbouring countries and for the occupation of the Congolese territory, while undermining regional stability. Although not the root cause of violent conflict in the DRC, their presence act as a major conflict-sustaining factor and the primary source of much of the continuing violence and suffering within the Congolese territory.
- The complete withdrawal from the DRC of Rwanda and Uganda, as well as the government allies (Angola and Zimbabwe) who, after having invested

heavily in the war, will not leave unless their individual interests are accommodated. These countries indeed hope to maintain their political influence on future developments in the DRC, as well as economic access to its natural resources. This is particularly the case for Zimbabwe which has thus far shown no willingness to abandon the direct or indirect exploitation of natural resources, as developed over the last few years.

Finally, another challenge facing the successful implementation of the Lusaka agreement (and the establishment of peace and stability in the region as a whole) pertains to the ongoing war on terrorism launched by the US and its coalition partners, as a result of the 11 September attacks on New York and Washington. While there is no doubt that a sustainable resolution of the conflict in the DRC as well as the central African region will primarily lie with the parties concerned, the current campaign against terrorism has nonetheless produced a major policy attention and priority shift at the international level, with potentially counterproductive impact in maintaining momentum with the continuation of the implementation of the Lusaka agreement and the Inter-Congolese Dialogue. It remains to be seen the extent to which the war on terrorism by the US will impact on current efforts to bring about peace to the DRC and the region.

Overview of Environment

The history of the Congo is littered with problems linked to an abundance of natural resources. Hence, the notion of what has been termed as the 'Congolese paradox'. On the one hand, despite the abundance of natural resource wealth, the DRC has remained a poor country. Seventy percent of the population live in absolute poverty, with unemployment at 85%.[10] Parts of the country that used to grow food for export and local consumption, such as Province Orientale and the Kivus, are now wracked by hunger, while severe malnutrition rates among children under five have reached 30%.[11] On the other hand, most conflicts in the DRC are termed civil wars, but they can be easily described as externally instigated resource-based conflicts. In this sense, Congolese conflicts are less motivated by internal competition over scarce resources than by its abundance of critical resources that, time after time, become strategic international commodities, access to which is sought through intense competition.

Topography

The DRC is located directly on the Equator in the central part of the African continent. It is the third largest country in Africa, with an area of 2 345 000

square kilometres, of which only 3% is arable land and 77 % forests and woodland. The DRC has three distinct land areas:

- the tropical rain forests, located in the central and northern parts of the country;
- the savannahs, located in the northern and southern parts of the country; and
- the highlands, which consist of the plateaux, rolling meadows, and mountains found along the country's eastern border, all along the Great Rift Valley.

Coltan is found in abundance in the highlands near rivers and riverbeds or in a hidden form throughout the two Kivu and Maniema provinces. While 80% of the world's coltan reserves are said to be in Africa, the DRC accounts for 80% of these African reserves.[12] This explains in part why recent conflicts have been concentrated in the eastern part of the country and the negative impact that these conflicts have had on the local environment.

Gold and manganese are also found in the oldest Pre-Cambrian rock formations of the country. The Middle Precambrian formations of the east-centre of the country are associated with tin, tungsten and related minerals, and the Katanga series of the Upper Pre-Cambrian in Katanga Province are a source of copper, cobalt, zinc, lead, silver, cadmium and nickel. In this sense, it is clear that the best soils and mineral resources tend to be located in peripheral areas, and this goes some way towards explaining the distribution of population - and conflicts.

For instance, the Kivu provinces, under rebel control in the east, have the potential to rank among the most productive places in Africa. The region is indeed a critical supplier of water, energy, food and arable land. Most farmers can yield up to three harvests a year. The region would nonetheless probably be in a better shape had it not been known for its minerals (including coltan), as it has now become the target of extensive, though illegal, natural resource exploitation within the framework of a wider conflict system involving a myriad actors and interests.

Population

Population estimates vary. In 1988, Zaire had a population of about 35.4 million and an estimated annual population growth rate of 3%. The estimated population for 1991 was 39.2 million for an average population density of about 14 people per square kilometre. In 2001 Amnesty International suggested a population of 51.6 million. Population life expectancy at birth averages 48.9 years while the fertility rate estimate for 2001 was 6.84 children per woman. The overall density is below the average and median for all African countries. In summary the demographics of the DRC consist of rapid

population growth (3% a year), rapid urbanisation (33%) and a youthful age structure (40% under 14).

The DRC's population is dispersed very unevenly, with the highest density in the Kinshasa area and westwards towards the coast in the Mayumbe region; followed by other peripheral areas such as Bandundu and the Kivu highland area of the east. Fast-growing population is concentrated in areas with fertile land, as well as in economic enclaves. Much of the heart of the country, the north-east and south, are sparsely populated. It is worth noting that, in rebel-held areas, urban population has drastically increased over the last five years owing to forced migration following persistent insecurity in rural areas.

With over 250 identified ethnic groups identified, the Kivus are one of the regions with the greatest cultural diversity. Since time immemorial, each ethnic group has had strong links with their surrounding environment: the environment provided local communities, both rural and urban, with foodstuffs, building materials and herbal medicine. However, insecurity and civil strife have interrupted the potential harmony between man and the environment. In this context, tribal groups affected include Pygmies, Barega, Bashi, Bahavu, Bahunde, Batembo and Banyanga. For instance, Pygmies are being engaged in activities outside the traditional farmer-pygmy relationship and are becoming commercial hunters, spending a greater proportion of their time hunting forest game and selling ever larger quantities of meat to coltan miners and traders.

Eastern DRC has also experienced a series of migration trends in the last eight years that have affected its environment. In 1994, after the Rwanda civil strife and genocide, millions of civilian and military refugees poured over the border from Rwanda causing serious damage to the environment. Large areas were deforested, while poorly planned refugee camps were set up, sometimes near or within protected forested areas.[13]

The rebel-held areas of the east are also the scene of involuntary population displacements and expropriation of local people's land, especially as a result of the illegal exploitation of natural resources. At the beginning of 2002 the estimated number of displaced people in the rebel-held territories was approximately 1.6 million, of which one million were located in North and South Kivu provinces.[14]

This population displacement has led to the emergence of 'internal refugees' or internally displaced persons who also become a burden on the host population, while severely impacting on the environment and existing natural resources. Since 2000 increased conflict between Congolese belligerents (rebel groups, Rwandan government forces and local militias) has caused changes in the patterns of population displacement, driving people much further from their areas of origin to other regions.

Claims by refugees, after a number of years, for political participation, citizenship, or land ownership, sometimes in total disrespect for the traditional

chieftaincy or country's laws, are often interpreted as a threat by local populations. These tensions remained unresolved and were suppressed during Mobutu's dictatorship, but were revived with the degeneration of his regime and the claims for multiparty participation, followed by the 1996 and the 1998 wars. The latter have put the immigrants, especially Tutsis, in a position of leadership, frustrating the Congolese people and prompting the growth of a local militia known as Mai-Mai with the objective of getting the foreign armies out of DRC.

The decline has already started to impact on the extended family structure, and even the nuclear family, with people opting for individual rather than collective or communal survival strategies. There are also many displaced groups that are being systematically subjected to forced labour.

Land Tenure and Agriculture

The DRC has two recognised land tenure systems: the modern and the customary.

Under the modern system, the government owns all land. The right to use land is thus assigned or allocated by the government through the Department of Land Affairs, Environment, Nature Conservation, and Tourism.

Under the customary land tenure system, land ownership is collective: groups or clans hold land. The group, though its appointee, assigns land for use to its members. Land used by a family over a long period of time is recognised by the group or clan as belonging to that family, but the family may not sell the land because, in practice, land ownership rights belong, ultimately, to the national government.

However, in places where strong chieftaincy exists, land ownership is believed to belong to the traditional king (Mwami) who then distributes it to his subjects through a sophisticated system of reward and punishment. This system is still very much alive in the eastern parts of the DRC, especially in the South Kivu Province where many traditional chiefs command authority.

Allegiance to this system may also explain why the land issue is linked to the control of power and has become a sensitive matter. In particular, this aspect was improperly dealt with during Mobutu's regime. Indeed, Mobutu used to buy the cooperation of the Bamis – allowing them to continue exercising their traditional powers, while the official laws and regulations of the country said otherwise. The Banyamulenge factor in the war in DRC found its meaning around the struggle for land ownership and recognition of Mwami power. In this sense, the issue of citizenship (which sparked off the Banyamulenge violent uprising against the Mobutu regime) was just another way to claim the right to land ownership.

Agriculture's contribution to exports has declined sharply over the 40 years since independence. In particular, the illegal exploitation of natural

resources (including coltan) has impacted on agricultural production. Many fields have been left unattended as a result of forced migration or the involvement of some section of the population in coltan digging. Agricultural productivity has thus declined – with resultant food shortages in urban areas and soaring food prices.

Across the east of the country, formerly surplus producing areas no longer grow enough to feed their populations.[15] Reasons include insecurity, limited access to markets, cassava blight, and difficulties in making enough money from the sale of crops. Moreover, the mine exploitation has diverted the existing manpower from agricultural activities to mine exploitation, especially coltan. In mineral-rich areas such as Walikale, Punia, and Kalima, the short-term benefits of mining have also encouraged some farmers to abandon agriculture. Instead of working in their fields, they prefer to dig for coltan, gold, or diamonds. In addition to the already high level of food insecurity in places in South and North Kivu, there is an additional problem posed by armed groups from all sides, who sustain themselves by stealing the limited food and crops from communities who are already struggling to survive.

Coltan Exploitation in Eastern DRC[16]

The DRC is rich in minerals, including copper, diamonds, uranium, gold and coltan. Coltan, a combination of columbium-tantalite, is today among the most important strategic mineral found in the Congo due to use in the even-increasing number of mobile phones. Although the country in general, and the Kivu in particular, has been neglected by corporate mining the mineral resources are so immense and so easily accessible that they continue to generate – without any substantial investments – considerable amounts of wealth measured in billions of US dollars. The wealth in turn, goes into war efforts and makes the conflict, particularly for the local and regional belligerents involved, self-fuelled and financially viable.

Coltan is not a root cause of conflict in DRC, in the sense that the mere presence of this natural resource, or for this matter, any other type of natural resource wealth, does not suffice to explain the ongoing conflict, as well as past conflict dynamics in the country. Rather, coltan can be described as a conflict-sustaining or aggravating factor, which contributed to the formation of new and localised conflict within the larger conflict system operating within the DRC and to the continuation or reinforcement of ongoing conflict dynamics.

The licit and illicit extraction and exploitation of natural resources in Congo is not a new phenomenon, but a recurrent feature of Congolese history, from the time of its being a private concession of King Leopold to the establishment of the Mobutu regime in 1964. Economic activity outside the

so-called formal legal sphere of the state was a predominant element in the colonial and immediately post-colonial Congo, particularly in the eastern parts of the country, to the extent of being denominated as *'Système D'*, *'Article Quinze'* or *'Debrouillez-vous'*. As the economy collapsed and the state's traditional (admittedly minimal) functions withered away, the informal, often illicit and sometimes violent, economy grew. Mobutu's regime progressively withdrew from providing basic services to the people, arguing that they should fend for themselves where the state had proved incapable or unwilling to do so. In the education sector, parents took charge of their children from nursery to university, including contributing to pay teachers' and professors' salaries.

In the Kivus where the state entirely ceased to provide social services, the population took things in their own hands to provide the minimum of services, with limited support from a small number of international NGOs and churches. Businesses turned eastwards for their exchange and almost abandoned Kinshasa as their reference point for most of their commercial exchanges. Rwanda, Burundi, Uganda, Kenya and Tanzania became their transit or destination points for their goods. However, never before the outbreak of the 'second war' in 1998 in the DRC has this type of economic activity, resource extraction and exploitation, been so intimately linked to *extractive violence*. No wonder that many Congolese perceive these activities as foreign in origin and contributing to external occupation and dominance, especially in the Kivus.[17]

Local rebel administrations are more interested in natural resource exploitation and appropriation than in initiating any development schemes. The conjunction of antiquated mining practices, decimated or degraded infrastructure, the arbitrary doling out of concessions, corrupt and unstable governments, and bloody ethnic conflicts have compounded the suffering of the eastern Congolese communities.

In eastern DRC, coltan deposits are found everywhere in farms, forests, savannahs, private and government land, in protected and unprotected areas. In South Kivu Province, coltan is mostly exploited in forests that constitute critical habitats for biodiversity conservation and communities' welfare, whereas in the North Kivu a larger number of deposits have been recorded on unprotected land. The uncontrolled influx of thousands of people for coltan mining onto different sites has impacted negatively on the environment. Wildlife is threatened for several reasons, including the availability of firearms, and the increasing firewood collection in the parks. In addition, the presence of a high density of population in protected areas increases the chances of human disease transmission and depletion of wildlife stocks through poaching.

Although coltan is generally surface mined, the process involves vegetation clearing and non-selective tree cutting. Many trees and shrubs in the

vicinity, comprising future timber trees and many other valuable species, are damaged or destroyed. More trees are being used for making firewood and shelters in the forest. Separating minerals is another environmentally damaging process. Debarking of large indigenous trees occurs as the bark is used to separate minerals of different weight. Some of the tree species affected are of importance for conservation and their regeneration is slow or delicate. Earth trenches are made to capture water used to separate minerals from raw ore, leading to soil erosion and degradation of water catchments.

In mining areas with no food supply, wildlife has become a targeted source of proteins and professional hunters decimate the animals while poachers acquire illegal firearms to increase their daily catch and contribute to biodiversity depletion and decline.

For instance, the Kahuzi-Biega National Park, a World Heritage site and biodiversity sanctuary located in South Kivu, has been adversely affected by coltan exploitation. This same park saw an influx of thousands of Rwandan refugees in 1994 who caused havoc by deforesting and encroaching upon its natural resources. According to David Sheppard, IUCN's Head of Programme on Protected Areas, "mining, together with the presence of so many people looking for food, is severely impacting on the ecology of protected sites, as in flagrant violation of World Heritage principles. It is feared that a large proportion of the elephant population in Kahuzi-Biega National Park has been killed as well as a significant number of gorillas, leaving the population at a dangerous low level." In a period of five years, the population of *Gorilla gorilla graueri* and other large mammals like elephants has dramatically declined. Indeed, of the 8 000 gorillas living in Kahuzi-Biega National Park in 1996, only a 1 000 remained by May 2001 and of over 3 600 elephants inventoried in 1996, only 500 were still alive by May 2001.[18] All this contravenes the DRC's existing laws regulating the "conservation of nature" and the statute of the park[19].

Due to insecurity and coltan mining, the largest part of the Kahuzi-Biega Park (about 90%) is out of the control of park authorities and wildlife hunted down, especially in the lowland areas where at least 20 mining sites have been established. Conservation activities in and around the park initiated and supported by the German Development Agency (GTZ) are adversely affected and restricted to a few sites in the highland sector.

By 2002 an estimated 15 000 people were exploiting the coltan, gold and cassiterite deposits on 48 sites throughout the park. Since the drop of the coltan price from US$ 100/kg to US$ 10/kg a few years ago, most of these people have settled in the park and have started farming, mining and hunting. This destruction in the eastern DRC and particularly in the Kahuzi Park has concerned Congolese and international ecologists, who have described the process as 'ecocide'.

In many mining camps within protected or conservation areas, coltan has become the currency and is being exchanged for a variety of basic items

supplied to miners. Access to coltan mining areas and neighbouring communities in rebel-held territory has become a problem. Rural communities are isolated and desperately in need of humanitarian assistance and education programmes on better use of the environment. Many local and international NGOs involved in nature conservation have failed to implement planned activities.

The Rwandan army controls South Kivu and part of North Kivu Province and the Ugandan army controls the rest of North Kivu and other parts of the DRC (at the time of its announced withdrawal from the DRC in mid-2002). Both countries are backing rebels of the Congolese Rally for Democracy (RCD) and the Congolese Liberation Movement (MLC).

Coltan is not the sole source of conflict, nor is it at the root of the Congolese crisis. It has nonetheless become an important conflict-sustaining factor, insofar as it has contributed to:

- exacerbating conflict (i.e. generating, along with other mineral and non-mineral resources, income for rebels and their supporters); and
- generating new dimensions in the already existing intercommunity conflicts (over land ownership and land use) while intensifying and accelerating the environmental degradation.

In the absence of strong state apparatus and legitimate government, coupled with the strong need for high-technology development materials on international markets, multinational corporations and local entrepreneurs have allied themselves with specific African countries to access these minerals in the DRC. It has become increasingly apparent that "changing patterns of international resource demand have led to a decrease in mineral self-sufficiency, and increased import dependence on many minerals, making more minerals strategic, and more of these, critically so."[20]

The Coltan Exploitation Cycle

The coltan exploitation cycle in the eastern DRC could be summarised into the following stages:

- Stage 1: Exploration
- Stage 2: Detection
- Stage 3: Extraction
- Stage 4: Transportation
- Stage 5: Treatment (transformation-commercialisation)

Multinational companies involved in illicit access to DRC resources provide instruments at Stages 1, 2 and 5 of the exploitation cycle. For instance, they provide devices to detect the availability and test the quality of coltan.

Table: Key factors in coltan exploitation

Category of Actors	Identity	Interests
Armed groups/forces	Armed forces of Rwanda and Uganda and Congolese rebels	– Exportation of internal crisis – Management of the post-genocide era – State entrepreneurship (state is like any other mineral dealer) – Finance military campaigns and personal gain for high-ranking officers and politicians. – Serve the interest of multinational companies – Coercive and dissuasive force for easy exploitation of coltan and other minerals – Protection of the mine zones against other interested groups (e.g. Mai-Mai) – Political and economic survival (especially Congolese rebels)
Local/regional business community	Burundian, Rwandan, Ugandan and Conglolese	– Making 'good money' – Self-enrichment – Evading taxes (especially for Rwandan and Ugandan businessmen/women)
Local communities in mine zones	Coltan diggers and other local people	– Making money – Getting back their lost land – Offer support to Mai-Mai
Other, including business, airlines, arms merchants	American, Canadian, Belgian, German, Kazakhstan	– Lucrative deals in the absence of government apparatus – Access to strategic minerals to remain competitive – Maintaining a presence in both rebel and government sides for future deals

At Stage 1, the Congolese administration, known as the *Centre National de Recherche Geologique et Miniere* (Mines and Geological Research National Centre – or CRGM), also provided some data, especially on the location and availability of coltan.[21] Sophisticated instruments are used to estimate the concentration and the quality of the minerals for industrial exploitation. At Stage 3, coltan is basically exploited in a 'craft' manner, based on the use of small locally available materials, such as hoes, spades, tridents, or iron bars. In some circumstances, the use of explosives is common, resulting often in a high death toll among the diggers, soldiers and local communities from respiratory problems.

Owing to deteriorated road networks, military vehicles often come to assist in the transportation of coltan to Rwanda, Burundi and Uganda at Stage 4 of the exploitation cycle. More often, transportation is by air, using Russian Antonovs that can ferry up to 20 tons. Several rotations are done every day to get these

resources to Rwanda. In particular, an air company was purposely created in order to facilitate the fast and efficient transport of coltan and other resources to the neighbouring capitals and elsewhere. The company known as TAC[22] (Transit Air Cargo) is responsible for liaising with Bukavu, Goma and Nairobi, where potential buyers get together and then export further to the western world and Asia. The same scenario applies in other areas controlled by Uganda.

Kivu coltan is believed to be of high quality and easily accessible, while not requiring specialised instruments for its extraction. In addition, it is not unusual if Rwandan military officers are seen accompanied by English-speaking 'white people' with sophisticated instruments of measurement. But, so far no big company has ventured in these areas with its own people and instruments for extensive industrial exploitation.[23] Military vehicles and Russian Antonov planes are used to ferry the resources to Bujumbura, Kampala, Kigali and Nairobi. A UN official reports having counted up to 64 rounds of planes in ordinary day in Shabunda.[24]

Marketing and Pricing

The value of Congolese natural resources, including coltan, is fixed in Kigali and Kampala. A Congolese dealer in Goma stated:

> "Everything here is hidden, we believe we are selling our coltan to Congolese but in reality we are selling it to Rwandans, the true bosses. They are the ones who determine the price at leisure and we have no other option than selling to them. They have the monopoly of everything around the coltan business."

Apparently Rwanda and Uganda fly the materials to industrialised countries through Belgium and Dubai. The Belgium airline SABENA suspended the transportation of coltan shortly after the release of the UN report on the plunder of DRC resources. A Dutch company, known as Martinair, subsequently replaced SABENA and was last operating between Kigali and Amsterdam. Several air companies representing Ugandan and South African interests are also apparently involved in the business. On the ground, the network is maintained by SDV-Transitra between Kigali and Mombassa or Dar es-Salaam. From there, the coltan is loaded into Safmarine cargos to Antwerp or Ostend.[25] It is also important to mention that Rwandan brokers, including many military commandants, have access to bank credit in their country and abroad. Such opportunities are inaccessible to their fellow Congolese because of the collapse of the bank systems in DRC.

Traders and mine specialists from Belgium, Germany, South East Asia or the United States are believed to be masterminding the business: "There are eight factories in the world capable of industrially treating raw coltan to extract the tantalum. This is particularly done in Thailand, Germany and USA."[26]

The system works in a way that the only role assigned to Congolese people is extraction and handing over to Rwandans brokers. Rwandans do not usually allow any direct dealings between Congolese and foreign buyers. This is done through imposed selective customs taxes, tacitly obliging the Congolese to deal solely with Rwandans, who in turn deal with the international market.

This system has generated a two-tiered system for coltan pricing. In particular, the Rwandans place an imposition on the Congolese diggers (price I) and the multinationals do the same vis-à-vis their Rwandan and Ugandan counterparts (price II). Price II is supposed to reflect the price at the international market. Rwandans and Ugandans in their respective areas of control have the monopoly of exportation and commercialisation of all natural resources in the Kivu. To this end, they create companies or ally to (newly formed or older) companies for the commercialisation of these resources.

The exploitation of coltan is thus done in total disrespect of the existing Congolese laws. Bids and concessions have been allocated to Rwandan companies while the former owners/legal holders have been alienated from their 'legal' right, creating a silent conflict between the two groups.[27]

Distribution of Coltan Revenue

Use of the income generated by coltan exploitation is dictated by the goals and strategies of the various actors involved in the cycle. For instance, at the extraction level, some local Congolese brokers have improved their standard of living by building new houses, driving new cars or creating new businesses. A majority of Congolese, however, collaborate with Rwandan army officials/businessmen who, with some RCD officials, are getting the lion's share of the profits generated from coltan extraction and sale. The 35 000 Rwandan soldiers in the Congo at the end of 2001 were well paid and equipped, while a special co-operative was set up in order to cater for the health of the wounded and sick soldiers fighting in DRC.[28]

The impact of the revenues generated by the DRC plundering is nonetheless limited in the countries involved, except among a small number of prominent individuals in the army and business community, who are connected one way or another to the international trade. For instance, thanks to SOMIGEL, the RCD was, until recently, able to balance its budget, pay salaries and plan for social policies. Ultimately, the coltan money was redirected to maintain an RCD army estimated at 40 000 soldiers.[29]

The most disastrous consequence of coltan exploitation can be seen at the community level, as the damage inflicted on the relationships between the Congolese people and their neighbouring Rwandans, Ugandans and Burundians. At national level, the future relationship between the DRC and its eastern neighbours will be deeply affected by this situation, and may haunt any responsible government in the DRC for many years to come.

Mineral Policy and Legislation

According to existing Congolese regulations,[30] coltan exploitation is illegal. The implication is that all documents issued by RCD-Goma and other rebel groups, in matters pertaining to precious, semi-precious or other minerals, are illegal, while this has created intense frustrations between the indigenous Congolese legal 'owners' and the new illegal title deed holders.

Edict-Law No. 81-013 of 2 April 1981 clearly stipulates that:

> "In virtue of article 10 of the constitution, the Zairian under-soil and the soil are and remain the property of the Nation and comprise among others mines, carriers, water mineral sources and hydrocarbons."

In other instances, individuals can only make use of the land and, by extension, the wealth on that particular plot, but they cannot own it. Article 2 further stipulates that "whoever decides to domicile in DRC has the right to prospect and search for mineral wealth under exclusive zones".

Edict No. 67-416 of 23 September 1967, article 8, draws a list of the various documents (counterfoil registers) required and issued by the Management of the Mines Service. These documents range from the application for "personal prospect permit"(Model A1) to the application for "subscription register to open a quarry" (Model H 17), making it at least 17 official documents.

In particular, a special clause of this article emphasises the role of the state in protecting people's interests even as they mine. In this sense, it is stipulated that:

> "The State is the guarantor and the protector of the general interest of the people. It can take special dispositions against the exploiter in case his/her exploitation is threatening the general interest of the people".

The Ministry of Mines thus is the principal manager of the mine sector and is locally represented by the '*gouvernorat de province*', namely the provincial administration, the local mine services, land service, and so on. According to existing laws and regulations in the DRC, only the Ministry of Mines can issue official documents, thereby rendering illegal any other documents obtained through other means, including those issued by rebel movements.[31] The law also stipulate the criteria for the involvement of both nationals and foreign investors in the mining sector in the DRC.[32] In particular, US$ 50 000 and US$ 250 000 were required respectively for nationals and foreigners, in order to open a counter for buying and selling precious minerals in the DRC.

In a war situation, such as the one of the DRC today, the notion of what is 'legal' and 'illegal' has become very fluid[33] where foreign countries have violated its territory and have come to join ranks with Congolese rebels. Even forces such as the Mai-Mai or *Interahamwe*, are collecting taxes from coltan

diggers in areas such as Ntoto in Masisi zone.[34] Foreigners, in collaboration with RCD officials, control the market and dictate the rules of the game.

Coltan's Impact on the Conflict

The exploitation of coltan has intensified older conflicts between different communities living in North and South Kivu. For instance, in the Masisi zone, since 1993, fierce confrontations have been recorded between Congolese of Rwandan origin known as Banyarwanda and other Congolese communities, over land ownership and citizenship. These confrontations were always exacerbated around events pertaining to local political participation. Since the Rwandan army took control of much of these areas, the Banyarwanda have regained power and influence.

Violent battles are also fought between, on the one hand, the Congolese government and its allies and, on the other, Rwanda, Burundi, Uganda and the Congolese rebels which they are respectively backing. Mai-Mai are also fighting and in March 2001 prevented the transportation of coltan in Butembo area, North Kivu.

A battalion of Rwandese soldiers and Congolese rebels, with heavy weaponry, are also said protect the 'Red Zones' in Walikale, where coltan can be found in abundance. Rwandan Hutu prisoners are used as labour in the coltan mine fields and experience high casualties in such places as Hamisi, Mafumbi Mubi and the Walikale centre. Helicopters control these zones and Congolese are forbidden and forced into 'camps', while fresh Rwandan settlers are brought in to resettle in the vacated land. Interestingly, Mafombi is nicknamed 'Nairobi Mine' probably because Nairobi is believed to form part of the coltan transit points in the exportation process.[35]

Infighting between rebels and rebel backers is among the complex and sometime strange dynamics emerging from the Congolese war. Violent conflicts have arisen between the rebel backers, Rwanda and Uganda, in the eastern upper DRC town of Kisangani,[36] causing extensive damage to the population (thousands of Congolese were killed or wounded) and infrastructure of the Kisangani town. Both wanted to control Kisangani, a strategically located town that is famous for its abundance in gold, diamond and timber. The fighting in Kisangani has led to a rapid deteriorated in the relationships between Rwanda and Uganda. The rebel movements have also suffered a process of fragmentation. The Ugandan government has indeed successively supported one faction against the other or even sometimes forced them to reconcile or merge with little success.

Banyamulenge and Rwandan soldiers have also fought in the Uvira area over the control of Uvira town and its surroundings. While not directly linked to any known particular resource, Uvira town is strategic for Banyamulenge who live in the Itombwe plateaux, overlooking the town.[37]

As a result of coltan extraction and exploitation, many Congolese families have been forced to leave their homes and lands and they are now living either in camps or in towns, especially Goma and Bukavu.[38] In the meantime, allegations of fresh immigrations of Rwandan communities and their occupation of the vacated lands have prompted an increase in Mai Mai attacks on these new settlers as well as on mine exploiters in the Masisi and Walikale areas.

There are ongoing local conflicts between Congolese rebel officials and their Rwandan backers: all taxes collected on all incomes generated from the exploitation of resources in areas controlled by Rwandans go directly to Rwanda, Burundi and Uganda.[39] Many Congolese rebel leaders have resigned as a result of these frustrations.

Between simple soldiers and their officers low intensity conflicts also exist, and have resulted in many desertions. Congolese rebels remain badly dressed and paid, or not paid at all, in comparison to their allies from Rwanda or Uganda. At the height of the war an estimated anything between 17 000 to 35 000 Rwandan soldiers[40] were in DRC, all well paid and dressed. The Congolese rebels subject the population to harassment of all sorts for their survival. Likewise, 'false' or true *Interahamwe*, or occasionally the Mai-Mai militias will add to this harassment, leaving the population in complete disarray.

In particular, Mai-Mai combatants are violently reacting to the situation of resource extraction and, as a result, have targeted their attacks on Rwandans, Ugandans and all Congolese collaborating with the latter. For them, the fight is against not only the violation of the national territorial integrity and sovereignty but also against those who collaborate and facilitate the illegal exploitation of the Congolese natural resources. For example, RCD official delegates were recently under attack from Mai-Mai in Kahuzi and Kalonge, simply because they intended to allocate a portion of a national park to private developers for coltan extraction.[41]

Another source of local conflict is the perceptible resentment the Congolese population has developed against the perceived invaders who are grabbing their lands and pillaging their resources. In the Walikale zone, where coltan is big business, the displaced Congolese population is longing for justice, as they are being forced to leave their homes and land and are concentrated in camps. The official rationale for such a policy is protection against 'negative forces' (mainly *Interahamwe*), but it is commonly assumed among the local population that this is simply an excuse to vacate them from what is now known as 'Red Zones' where coltan is found in abundance.[42]

The heavy presence of foreign armies, coupled with the fierce exploitation of the natural resources and gross violations of human rights have plunged the majority of the population into a state of hopelessness and helplessness while the rebels (the RCD-Goma in particular) lack clear popular support because of its close association with a foreign army, that of Rwanda.

The reality on the ground does indeed contradict the rebel attempts at making things appear normal. While the local administration is functioning and political leaders are appointed, civil servants are not paid, the economy is almost at a standstill, most of the soldiers are ill paid and equipped and people are in a state of constant insecurity. At the same time, RCD officials and their backers appear to be enriching themselves.

The Concord and Pacification Commission was established in 1998 by the rebels to harmonise conflicting community relationships, as well as to boost its image within its area of control. This nonetheless has had little impact because local people found this entity, which was supposed to prevent and manage conflicts between different communities, "too politicized and unrepresentative". The other existing structure is the *Baraza inter-communautaire*, a platform representing different conflicting Congolese communities that was created in a bid to reach a peaceful settlement to the conflict. This structure is handicapped by lack of political will from the local administration and an absence of financial and logistical support.

Most laws and regulations used to prevent and resolve conflicts around mining concessions, are either simply ignored or not applied. "This is the law of the jungle," according to a local NGO leader in Goma town, referring to the rebel judicial system, "no body respects the law, not even the 'law enforcers' themselves."[43]

Conclusion

The DRC is endowed with a unique biodiversity, wide mineral and forest resources and rich soils for agriculture. Much of this wealth is concentrated in the eastern parts of the country which have been the setting for the original rebel movements, as well as the ongoing occupation and struggle by both national and external parties to the conflict. In this sense, it is hard to dissociate the conflict in the DRC from the environmental dimension.

The natural wealth of the DRC constitutes both a blessing and a curse. If properly managed, natural resources can pave the way for a better future in the Congo. Natural resource wealth can generate as well as further perpetrate wars and conflicts (from within or from outside). The illegal exploitation of coltan has added to the complexity of the conflict in the DRC. An international embargo on natural resources such as coltan, as part of the development of a binding international code of conduct for the private sector on issues of the extraction, exploitation and purchase of natural resources could increase pressure for conflict resolution. However, addressing this issue in isolation from the wider conflict will not prove successful in bringing about sustainable peace. Other deep running, internal as well as external, causes will indeed also need to be tackled in order to achieve peace and stability in the country and the region.

It is increasingly argued that the two successive conflicts in the DRC have become a lucrative business for some conflict parties,[44] in the form of resource exploitation and extraction. For instance, during the AFDL's war campaign on Kinshasa, foreign troops and their 'friends' openly initiated business in the territories liberated by the rebel movement, while indirectly encouraged by the late Laurent Kabila.[45] In this sense, the illegal exploitation of the DRC's natural resources by foreigners started with the 1997 war of liberation. At that point a number of foreign businesses started operation in the eastern parts of the DRC under control of the AFDL rebels, backed at the time by Angolan, Ugandan and Rwandan forces.

It can also be argued that the conflict in the DRC may even have developed into an economic instrument for some conflict parties, including Uganda and Rwanda. Although security and political considerations were the initially professed rationale for the intervention of these countries in the eastern parts of the DRC during the August 1998 conflict, there have also been hidden economic and financial agendas, resulting from previous engagements in the Congo and knowledge of the richness of Congo's natural resources. In this sense, the access to, as well as possible illegal exploitation of, natural resources may have been a determining factor in the decision by external actors to enter the conflict in the DRC, especially during the course of the second conflict in the country.

The linkages between the illegal exploitation of natural resources in the DRC and the conflict should not only be seen in terms of personal or national enrichment but, in also terms of financing the war efforts of the parties themselves. In this respect, the UN Panel assigned to investigate the expoitation of the DRC's natural resources clearly demonstrates in their reports that the illegal exploitation of coltan has permitted the Rwandan army to sustain its presence in the DRC and to further provide security to the companies extracting the mineral, whose revenues from the coltan exploitation will be shared with the army which, in turn, continues to provide the enabling environment for such illegal activities.[46] Similarly, it is contended that, thanks to the illegal exploitation of various valuable commodities, major rebels groups have become autonomous, for instance for their supply of military equipment. In this sense a vicious cycle of war has developed in the DRC, where the illegal extraction and exploitation of natural resources has come to play a conflict-sustaining role.

The external engagement of third parties, in its various forms and for differing purposes, therefore remains a fundamental cause of violent conflict in the framework of the DRC. In this sense, some third parties operating in the territory of the Congo – neighbouring countries and even international private companies – can be described as peace spoilers, in that their current, yet differing, interests and activities profit from the conflict situation and thus the absence of peace.

A successful strategy for the resolution of conflict in the DRC will have to take into account such external as well as regional linkages and, one way or the other, accommodate these various forces, in order to bring about positive engagement. Any peace initiative focused on the resolution of conflict in the DRC cannot be undertaken in isolation from the regional context and other neighbouring conflict-prone situations.

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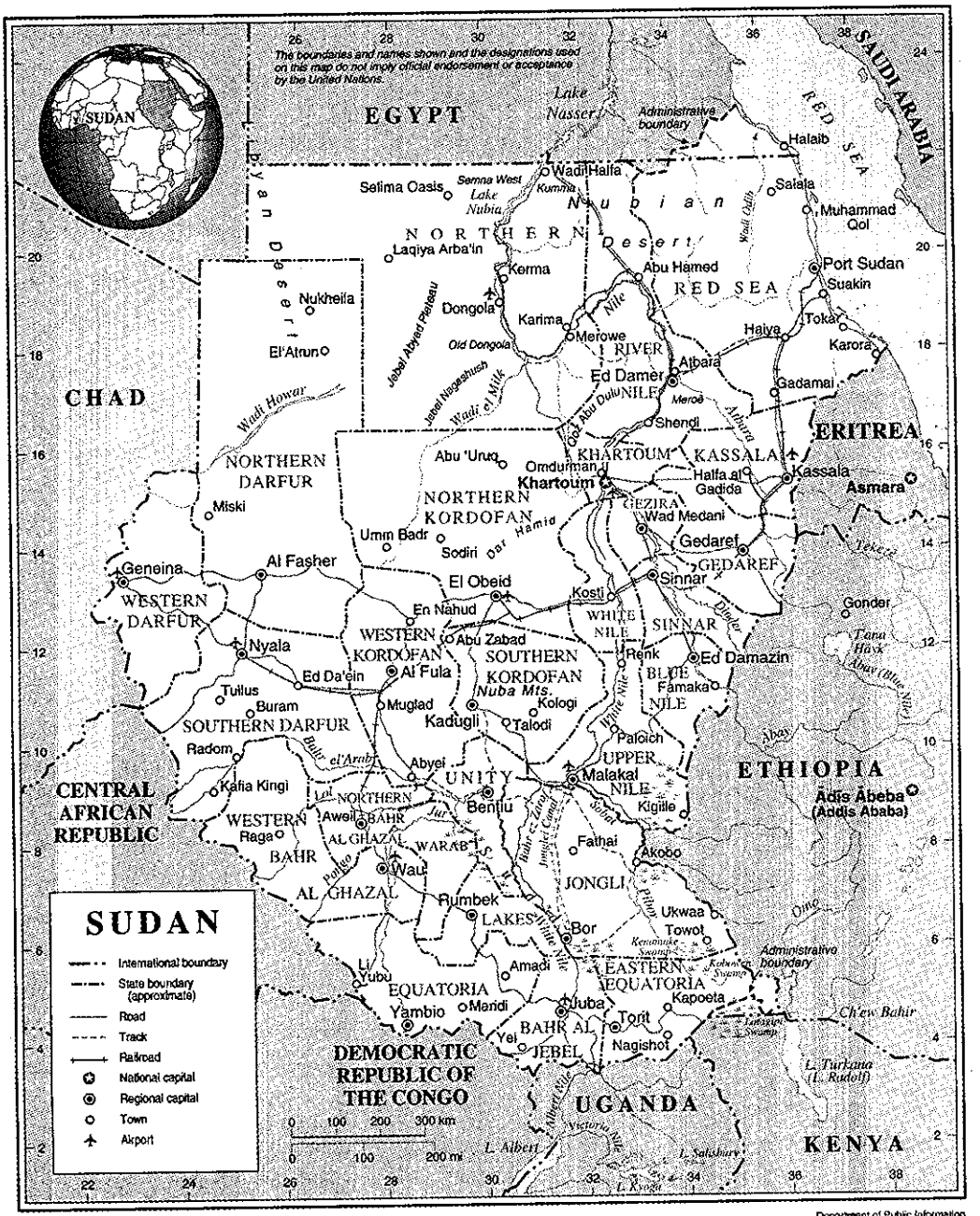

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Chapter Five

Oil and Water in Sudan

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Introduction

What policy and legal measures, among other interventions, may help to resolve the seemingly endless conflict in Sudan? A nation of 36 million people, wracked by conflict for 34 of the last 45 years, it has generated some four million displaced people during the course of its war. It is estimated that over two million Sudanese people have died as a result of fighting and related starvation and disease.[1]

According to the International Crisis Group, "there will always be abundant excuses to justify the continuing war in Sudan ... However such justifications sound increasingly hollow in the face of decades of suffering ... The time has come for a concerted international peace effort to break the logjam of violence in Sudan."[2] Indeed, the reordering of global relations in the so-called 'War on Terror' and Sudan's historical harbouring of its suspected architect, Osama Bin Laden, has created an opening for peace building.

This chapter seeks to distinguish itself from many other analyses of Sudan's long-running civil war. Our primary concern, in contrast to other anatomies of the war which trace their roots to Arab-African, Muslim-Christian, and other essentially identity-based dichotomies, is to identify how environmental and ecological variables contribute to the war and how it is waged in Sudan.

Departing from conventional wisdom requires a novel framework for analysis. Our analysis is guided by a hypothesis linking five ecological variables to the conflict cycle. We expect that competition for scarce resources will emerge as a causal factor. We also anticipate that an important determinant will be the struggle to exploit and control the ecological sources of surplus value – oil in particular.

Our framework tests three additional factors. One is the role of *distributive agents*, referring to those demographic, tenurial and physical factors that determine the distribution of natural resources for particular social actors or groups – the framework document cites population growth and unequal resource access. The second is *ecological trends* – the decrease in quality or quantity of renewable resources. The third issue requiring research is the question of *ecological outcomes*, defined here in terms of the net gain or loss of a natural resource for different actors involved in conflict.

Among these five variables, the role of distributive agents is ostensibly the one determinant of macro-level developments amenable to policy mitigation. The nature of these agents mirrors physical, demographic, and other essentially infrastructural variables; where the *agency* corresponds to rules, practices, traditions, and other protocols subsumed within formal and cultural institutions.

Our analysis of the Sudanese conflict cycle begins with an overview of the Sudan conflict, tracing the system's history, underlying pattern and distinctive features. This allows us to map systemic elements and cyclical dynamics of the Sudan conflict system, with a view to guiding policy interventions.

Turning to the environmental analysis, we explore the interaction between people and their environment in Sudan, illustrating how natural systems shape the north-south divide. We then reverse the telescope, and examine the patterns of resource consumption and management, revealing how a top-down approach to resource management has deepened the fissures in the Sudanese society.

The Jonglei Dam case study illustrates the top-down approach to resource management carried over from the colonial regime and how it can lead to conflict through a failure to involve affected communities in resource management decisions, and through a failure to deliver to these communities on promised benefits.

Delving into the Dinka-Nuer conflict cycle, we see how environmental factors and alternative livelihood strategies permitted the Nuer to expand at the expense of the Dinka. Indeed, we posit that conflict would continue at the heart of Sudan even were the entire country of one religion, in the face of what might be the single largest case of one community displacing and occupying another group's territory in known history.

The oil factor has assumed critical importance of late, and as such has been unpacked in the subsequent section. Our analysis here suggests that revenues from petroleum production are financing the conflict, that the oilfields have become strategic targets for rebels, and that various foreign interests – China and Malaysia, and multinational corporations from Europe, North America and Asia – have interests that are not necessarily aligned with the promotion of peace. Noting that unregulated environmental and social aspects of oil production also have significant impacts on the conflict dynamic in the country, it stresses that if the international community were sincere in seeking peace for Sudan, it must take multilateral measures to regulate petro-revenues in the region.

The study concludes by exploring various factors critical to reform in order for peace to emerge – advocacy, emergency relief, oil production, and natural resource governance.

Background to the Conflict

Sudan, the largest country in Africa, covers an area of 250 million hectares and is bordered by Egypt and Libya to the north, Ethiopia and Eritrea to the east, Central African Republic to the west and Kenya and Uganda to the south. Sudan is a country of diverse cultural, religious and ethnic orientation, with bountiful natural resources from land and vegetation to minerals that could foster a rich and dynamic socio-political economy. The reality has been the reverse, as the Sudan has been plagued for centuries with resource-related conflicts.

Southern Sudan is rich in natural resources; regions to the north are less so. Common language and religion reinforce the social base of the Sudanese state; the unity of southerners stems mainly from a shared sense of oppression and marginalisation. Northern society and economy reflect long-standing external linkages; southern society is very much a product of spatial and historical isolation. The northern polity and economy is highly centralised; southern polity and economy is decentralised and fragmented. These contrasts belie the Sudanese 'Arab' characterisation of their homeland as *dar es islam* (land of peace), which is at least partially a function of their perception of the 'African' south as *dar al harb* (land of war).

Analysing the ecological sources of the Sudanese conflict, however, forces us to look beyond the obvious dualities between north and south, Christian and Muslim, African and Arab. Instead, it directs one to examine the linkage between macro and micro levels of the conflict. This, in turn requires that we trace the history of conflict in the region, disaggregate regional aspects of the problem, investigate the localised ecological and environmental elements, and specify how they articulate within the larger conflict.[3]

Historical Context

Distinction between north and south remains a core issue that has pervaded not just political and social aspects of the war, but is a key factor of ecological conflicts in the Sudan. As is the case with most of Africa, Sudan has been subject to a long history of natural and human resource pillage by the West and the East. Pre-colonial Sudan experienced centuries of foreign invasions primarily for the following reasons:

- the pillage of natural resources, prominently ivory, gold and timber trade; and
- the capture of human resources through the slave trade.

Though the search for resources remained a major motivation, the dynamics of these invasions evolved to incorporate religious and cultural dimensions. The Turkish-Egyptian conquest in the 19thcentury established the first formal administration of the Sudan under a vast monarchy spreading from Egypt to Lake Victoria.

While Islam had already gained significant ground in the Sudan prior to this period, the Turkish-Egyptian rule facilitated the spread of Christianity through missionaries and explorers from Europe and America who came to voyage the length of the Nile and its tributaries, the White and Blue Niles. Slave trade peaked during this period, until it was abolished in 1847. The centralised nature of the Turkish-Egyptian administration was unfamiliar and unpopular both in north and south Sudan. This gave rise to the Mahdist Revolution in the late 1800s.

The Mahdi declared a *Jihad* and set out to spread Islam not only in the north but also in the south, aggravating southern tribes who were mainly animist and did not embrace Islam. Consequently, the southern tribes supported the British against the Mahdists in the Battle of Omdurman in 1898. In 1899, Britain and Egypt established a joint condominium rule, with the British first among equals in wielding political control.

Increasing tensions between the north and south over resources, ethnic, religious and cultural differences complicated the condominium regime. The Milner Report of 1922 resulted, from 1930–1944, in a southern policy with a 'Closed Districts Ordinance' whose aim was to:

- reduce the wanton exploitation of resources in the south;
- abolish the slave trade;
- preserve cultural diversity of the black southerners;
- check the spread of Islam in the south and into central Africa; and
- initiate the separation of African Sudan from Arab Sudan.

As part of this effort to divide the north from a strengthened south, the southern policy also implemented the 'Permit to Trade Order'. This order sought to exclude Egyptian, northern Sudanese and other Muslims from trading in and with the southerners, but encouraged southerners to trade with East Africans and Christian traders from Greece and Syria.

Egypt and the northerners greatly resisted the southern policy. The rising movement among Eastern African countries towards independence could not include southern Sudan, which was comparatively under-developed and fractured by intertribal differences. Consequently, the British introduced a 'New Southern Policy', promoting integration of the south with the north as equal partners, a reverse of policy by the colonial masters. Many southern Sudanese deemed this effort at unifying north and south a fatal blow to the stability of the country.

In 1947, the British proposed a legislative assembly to unify the north and the south. Recognising the absence of political structures in the south and the need to secure the rights of the south to manage their affairs and resources, the Juba Conference was convened to rationalise the participation of the south in national politics. It was quickly established that while

economically, the south could not stand on its own, the south did not want to be subject to the north.

A Constitutional Commission was established in 1951 to propose safeguards for the south. The commission had an inherent weakness in that it had only nominal southern participation. While proposing some measures that favoured the south, the commission rejected the call for a federal system of governance for Sudan.

Similarly, the Anglo-Egyptian Agreement in 1953 that granted self-governance to Sudan did not include participation by the south. Marginalisation of the south in the independence process continued, leading to armed uprising in the southern province of Equatoria in 1955, and the walk-out of the southern delegation. This open opposition compelled the northern elite to 'consider' a federal system of governance for the south. Based on this guarantee, the southern representatives agreed to participate in the declaration of independence on 1 January 1956.

In 1958, a military force, under General Ibrahim Abboud, seized power and began a campaign to suppress opposition and accelerate the 'Islamicisation' of the south. At the same time, the Anya Nya (Snake Poison) rebel force, which began to form in the year before independence, emerged as a military threat to the state. The Anya Nya campaign for southern self-determination ended in 1972 when the warring parties accepted the Addis Ababa Accord, a formula granting the south regional autonomy.

Efforts towards Peace

The section below summarises many of the past and ongoing efforts at peace in the Sudan, all of which have grappled to a lesser or greater extent with the difficult issues of religion, ethnicity, and resource control.

The Addis Ababa Accord reached in February 1972 between the government of Sudan under President Numeiri and the South Sudan Liberation Movement (SSLM) or Anyanya II Movement established regional self-government in the southern provinces of Sudan including Bahr El Ghazal, Equatoria and Upper Nile. It was during this peaceful phase in the Sudan that oil exploration and discovery occurred.

The agreement established a system of governance in Sudan that provided for extensive autonomy and self-rule in the south. The Addis Ababa Accord failed, however, to establish real autonomy. The executive powers of the regional assembly, including the governor, ministers and commissioners, were all to be appointed or approved by the president of the republic. The president also retained veto powers over any bill he deemed contrary to the national constitution. In effect, though the southern region was provided on paper with extensive autonomy in the management of its affairs, it was all subject to the direct approval of the presidency.

The current phase of the conflict involving the National Islamic Front (NIF) Government and the Sudan People's Liberation Movement/Army (SPLM/A) under the command of Dr Colonel John Garang de Mabior started in 1983. The Koka Dam Agreement of March 1986 during the premiership of Sadiq Al Mahdi and his governing ally El-Mirghani is notable, as it was entered into by the SPLM/A of Dr Garang and El-Mirghani heading the National Alliance for National Salvation. The Koka Dam Agreement called for the convening of a national constitutional conference to discuss the problems of Sudan and the repeal of the September 1983 Laws that introduced *Sharia* as a national law. As a prerequisite to the national constitutional conference, the Koka Dam Agreement called for the dissolution of the government of Sadiq Al Mahdi and its replacement by a new Government of National Unity incorporating all political forces in the Sudan.

The constitutional conference was never held as Sadiq Al Mahdi rejected the agreement. His government was particularly opposed to the repeal of *Sharia* as national law and the dissolution of his government.

The Asmara Agreement reached in 1995 between the National Democratic Alliance (NDA) – opposition groups in the north – and the southern SPLM/A, was a significant attempt to address the fundamental north-south issues of the Sudan. The Asmara Declaration called for the establishment of a decentralised government comprising northern and southern entities or regions with extensive powers allocated to each region vis-a-vis the central governing unit.

Issues of environmental and natural resource management were included in the distribution of powers between the central authority vis-à-vis the southern and northern entity. The Asmara Agreement places the management of natural resources and the environment prominently under the two entities or concurrently with the central entity. The exception remains the issue of mineral resources which is placed under the central authority, however, recognising the right of the host entity to fix a reasonable percentage of returns of the revenue accruing from the exploitation of mineral resources.

The Asmara Agreement was a major step forward in identifying the factors needed for peace in the Sudan, as it brought together most of the major stakeholders. It was greatly limited, however, by its omission or denial of the government of Sudan as a partner in the peace equation.

The Khartoum Peace Agreement of 1998 was signed by the government of Sudan and several splinter groups from the SPLM/A under Dr Riek Machar, Dr Lam Akol and the late Commander Kerubino Bol. It established a coordinating council to manage the affairs of the south, and the right to self-determination through a referendum after an interim period of four years under a federal system of governance.

The Khartoum Peace Agreement provided for southern citizens to participate in all federal political and constitutional institutions in numbers com-

mensurate to relative population size. Given, however, that southerners remain a significant minority in the Sudan, this basis for representation did not place north and south on an equal footing.

Most environmental and natural resource management powers are vested under state governments with the exception of mining and oil projects that are considered national resources and are under the domain of the federal government.

Though the Khartoum Peace Agreement is still under implementation, key proponents of the agreement – including the late Commander Kerubino Bol and Dr Riek Machar – defected from the agreement and resumed rebel activity, arguing that the government of Sudan had no intention of upholding its end of the agreement.

Several initiatives have sought to resolve the conflict with limited success. Non-African initiatives include those led by former United States president Jimmy Carter in 1989; calls by the Intergovernmental Authority on Development (IGAD) Partners Forum (IPF); and, most recently, negotiations in Switzerland in 2002 convened by the United States. Mediation efforts have tended towards a 'quick-fix' approach emphasising immediate cessation of hostilities without necessarily addressing the core issues of the conflict. This incomplete approach has produced half-hearted 'partial ceasefires' by the major belligerents – and the war continues. There is a sense of fatigue on the part of western nations in the face of the endless Sudan conflict.

Likewise, African-led mediation efforts have made few gains on the key issues. The inability of track one peace initiatives directly to challenge the parties to the conflict on contentious issues such as state and religion, the right to self-determination for the south, and the more recent issue of oil, has greatly limited any movement in negotiations. Relevant initiatives include the Abuja peace talks and the IGAD Sudan peace process.

The Sudan peace process, initiated by the Inter-governmental Authority on Development, has included seven countries since 1993 to date: Djibouti, Ethiopia, Eritrea, Kenya, Somalia, Sudan and Uganda. It was not until 1997 that a Declaration of Principles (DOP) was signed by the two parties, the government of Sudan and the SPLM/A as the framework for a peaceful and just settlement of the conflict in the Sudan. The key components of this consensus statement were:

- securing unity of the Sudan through the establishment of a secular and democratic state; and
- affirming the right to self-determination for the south as per the borders of 1 January 1956, through a referendum.

Until the recent signature of the Machakos Protocol, negotiations towards the implementation of the DOP bore little fruit.

A Joint Egyptian-Libyan Initiative was started in 2000 to mediate between the government of Sudan, and the National Democratic Alliance (NDA) – the umbrella grouping for the northern opposition groups and the southern SPLM/A. Other than being more inclusive in structure, this initiative did not address the most contentious issues of the conflict, steering away from self-determination for the south, and from separating state from religion, both of which are opposed by Egypt and Libya.

On 20 July 2002 the Sudanese government and the SPLM/A signed the landmark Machakos Protocol, although renewed fighting soon thereafter raised fears of a lack of commitment to the accord on the part of the signatories. Fighting has been particularly intensive in the oil fields in western Upper Nile (Wahdah/Unity State). Under the deal, the parties agreed that a referendum for the population of southern Sudan – the scene of fierce fighting between Khartoum and the SPLM/A since 1983 – be conducted in six years' time to choose between secession or to remain within a united Sudan. In the interim, negotiations are to continue on the modalities of a cease-fire and the normalization of the situation to facilitate the return of over three million displaced Southern Sudanese to their home areas. The Sudanese government and the rebels also have to agree on the disengagement of forces and whether they want to invite foreign observers to monitor the truce. Ahead of the negotiators lies the intricate issue of the sharing of power and wealth, particularly oil revenue during the six-year interim period up to 2008.

Several key issues that are centrally relevant to the resolution of the conflict emerge from an overview of the major agreements and peace initiatives:

- Generally, there has been some recognition of the need to ensure good governance over economic and natural resources and to ensure equitable distribution of wealth and power in order to foster a harmonious society in the Sudan.
- Most initiatives recognise the need for the decentralisation of economic and political powers to enhance the management of affairs.
- Most initiatives have assumed that decentralisation is a southern concern that does not necessarily permeate the whole of Sudan.
- There is an emerging recognition that the conflict in the Sudan is increasingly over critical resources. For this reason, peace initiatives are increasingly seeking to address the issue of environmental and natural resource management definitively. The means to do so, however, remain elusive.

Overview of the Environment

A tale of Two Rivers: Ecological sources of the North-South Divide

Analysing Sudan from a comparative perspective subsumes critical geographical differentials distinguishing the southern Saharan fringe from the lush regions below. North Africa and Arabia form an environmental and cultural continuum separated by the Red Sea. The camel and the Mediterranean coastline made lateral communication in the north relatively easy compared to crossing the vast, waterless desert to the south.

But the fact that, with proper preparation and organisation, traders *could* cross the sands enhanced the strategic position of communities in the Sahel, the zone of semi-arid and sub-humid savanna stretching from Senegal to the Horn of Africa. Long-distance commerce and trade with forest communities to the south contributed to the emergence of a number of medieval states located along the arc of the River Niger. States like Timbuktu, Djenne, and Ghana came and went, and conflict remained a localised phenomenon.

This was also the case both before and after the regional violence precipitated by the campaigns of Osman Dan Fodio. Environmental comparative advantage underpins the symbiosis linking savanna and forest communities. Exchange reinforced the co-evolutionary dynamic responsible for West Africa's regional commonalities that developed over time. The distribution of Fulani herders from Guinea to Cameroon illustrates the regional scale of agro-pastoral connections binding the western Sahel to adjacent agricultural areas. The Senegal, Niger, and Volta river systems reinforced and complemented the eco-zone symbiosis.[4]

The western Sahel developed the same religious, cultural and economic oppositions present in Sudan. The presence of oil has been equally contentious. Yet contemporary incidents of conflict indicate a breakdown of traditional protocol – and not the collapse of the regional social-environmental dynamic – as recent incidents of farmer-herder conflict in Cameroon demonstrate. Even the periodic eruptions of violence plaguing modern Nigeria, the region's microcosm, derive from internal political competition, and not regional factors. Indeed, the whole region would catch fire if they did.

Just as environmental zoning and river networks fostered exchange and interaction, the highly compartmentalised structure of the region's ethnic communities serves to buffer and contain conflict from spreading beyond their epicentre. This configuration of environmental forces and social units, however, become progressively attenuated beyond the eastern flank of the Niger Basin.[5]

The similar combination of ethnic patchwork and ecological zoning in the eastern Sahel displays a certain internal equilibrium over time, but with external contact and modernisation this pattern breaks down in Sudan. The

Islamic polity developing in the central and northern zones came to establish hegemony over the more humid regions to the south. Control of the state has facilitated the exploitation of environmental resources by the mainly 'northern' elite. The secession movement embodying the southern peoples' response suffers from the region's endemic fragmentation.[6]

This inversion of the modernised Christian agriculturalist domination of the traditional agro-pastoralist and marginalised nomad theme in Sudan is also at variance with the general pattern for the greater Sahel. When we use the optic of environmentally conditioned dynamics to analyse the greater region, the Nile River emerges as the chief feature distinguishing the region that became modern Sudan from the rest of the original *Bilad es Sudan*.

Eastern and western Sahel share a common set of historical attributes: a tradition of long-distance trade dating back to the proto-history era; the rise of regional states since the early period of the last millennium; the spread of Islam via mystical sects; ethno-linguistic units that decrease in size as humidity increases; consistently unpredictable nature of rainfall across irregular cycles of dry and wet climate over the last 2000 years, and a relatively stable configuration of ethnic communities – at least for the past several hundred years. The pilgrimage to Mecca long provided the only traditional albeit tenuous link to the outside for the otherwise spatially isolated region.

The historical role of the Nile, the only major river in the world running from south to north, contrasts markedly with West Africa's waterways.[7] The Niger, Senegal, and Volta Rivers provided a basic communication network spanning West Africa's forest savanna continuum. The Nile axis has funnelled external influence into the African interior since pharaonic times. Until recently the influence was mainly episodic; the expanse of desert separating central Sudan from Egypt limited the impact to a spatially circumscribed pocket.

But outside forces exerted a certain accumulative effect owing to the combination of physical and spatial barriers and the twin-pronged connection to Egypt and the Arabian peninsula provided by the river and land route to Port Sudan. The result was the emergence of the 'riverain Arabs', a mercantile class that assumed control of the centralised modern state and has successfully expanded large-scale agriculture while capturing resources from the south to concentrate power in the hands of the traditional-modern elite.

Deng asserts that Sudan's economy has long been the domain of these 'riverain Arabs'. Mansour Khalid, one of the few SPLM members from the north, states that all power in Sudan is concentrated within a ruling elite, composed of:

> "... the politicised Arab/Islamic rulers coming from the urban and semi-urban centers of the northern and central Sudan in Khartoum, White Nile, Gezira, and Kordofan provinces, which exert a political and economic hegemony over the marginalised social and cultural groups living in rural

and outlying regions of the country, including some parts of the geographic north."[8]

The drainage basin below the junction of the Blue Nile and White Nile, in contrast to the gradual succession of ecological gradients in West Africa, provided a formidable barrier to interaction for the southern Sudanese. One set of forces spawned by the isolation below, and another driven by the external influences accruing above began to reach a critical threshold during the early 1800s. The result was a struggle between centralising institutional interests concentrated at the junction of the White and Blue Niles and centrifugal forces embedded in the wider environment.

Specific aspects of these centralising forces and decentralising initial conditions periodically resurface within the conflict cycle. State organisation, modern economy, and external linkages generally support centralising tendencies. Corresponding environmental forces derive strength from the region's cultural diversity, localised ethnic organisation and indigenous political traditions, and subsistence strategies varying across ecological niches. Sudan's north-south conflict system is therefore the product of the inability to resolve tensions generated by these environmentally created polarities.

Unpacking the variables along these lines separates ecological determinants from the identity and religious aspects of the conflict. Identity and religion have been used by both sides to mobilise their internal populations and to attract external support, yet are a feedback from the environmentally created north-south poles. Viewed through this lens, the battle over the control and extraction of resources – be they ivory and humans, or timber and oil – take analytical priority over other factors of race, religion, and the African-Arab dichotomy commonly cited as determinants of north-south enmity.[9]

The larger pattern of conflict across Sudan thus reveals demographic and environmental forces operating underneath the political and social chaos. Decreasing rainfall in pastoral areas, environmental degradation in agricultural islands, and technological-economic stagnation are over time combining to intensify ethnic conflicts over subsistence resources in both the south and the north.[10]

Northern communities and so-called 'neutral' minorities have increasingly engaged in struggles over land and natural resources since the Sahel famine of 1974–76. Most conflicts involve ethnic dyads: Baggara raids on the indigenous inhabitants of the Nuba Mountains; Rufa'a nomads versus Gamk and Uduk farmers in the Ingessana Hills; 'Arab' tribes' clashes with the Fur in the Jebel Marra Massif region; and the Rashaidah pastoralists encroachment on the Beja.

Sudan's estimated annual population growth during the 1990s is estimated to fall between 2.5 and 2.8%. Even in the south, where mortality from war and famine has claimed hundreds of thousands of people, such Malthusian

checks have impacted more on population demography than population growth. The war boosted what was a trickle of economic emigrants into a steady flow of refugees fleeing their home areas to the north. Despite horrendous living conditions, their underclass status, and periodic harassment including the flattening of shantytowns by government bulldozers, the numbers of internally displaced southerners accumulating in the north continue to grow.[11]

Structurally, the Sudan conflict is not about whether the south's resources are sold on the market, acquired through coercion, or remain on or in the ground: it is about arriving at an adaptive arrangement where natural wealth promotes the welfare and progress of all Sudanese and their regional neighbours.

Environmental Governance

Governance issues are central to explaining the role of ecology in conflict in Sudan. Important governance-related issues are the following:

- The exploitation of natural resources remains skewed towards primary resources such as land, minerals and water resources. Conflict has emerged between exploitation of natural resources in the south to benefit a northern dictated 'national' development policy and the livelihood needs of southern peoples.
- Competition over primary resources caused by the converging trends of rising population and rising resource exploitation, often without the participation of local communities in decision making, has created a structural state of resource scarcity for many.
- Unsustainable patterns of resource utilisation compounded by increasing pressure for the same resources has fostered localised degradation of land and some natural resources. The consequence is rising competition and conflict over increasingly scarce resources.
- Imposition of centralised administrative systems dating from the Turkish-Egyptian rule in the 19th century onto customary systems for land ownership and control.

Exploitation of primary natural resources is based on the traditional economic practices of the population in the Sudan, predominantly agro-pastoralists, supported by the colonial policy of resource extraction carried over in Sudan's post-independent economy. The result is an erosion of the primary natural resources base. According to Suliman:

> "when the colonial powers introduced their market economy in Sudan towards the end of the last century, they simultaneously restricted its development and expansion by indigenous Sudanese in order to maintain

> political and economic control. After independence ... a Sudanese 'national bourgeoisie' began to evolve from a primary mercantile social class now ostensibly freed from colonial control. There were, nonetheless, several strong barriers to the development and progress of a middle class whose European equivalents had brought about the industrial revolution. In Sudan, they lacked the major prerequisites for industrialization – namely capital, technical and scientific know-how and markets – and so their focus shifted from manufacturing production to the extraction of natural resources."[12]

The limited development of other non-primary natural resources to drive the Sudan economy, coupled with unsustainable exploitation patterns, have created a pseudo-state of scarcity within an abundant resource base. Its not that there is not enough – its that people do not have enough.[13]

Inappropriate development policies, largely carried over from the colonial era, have exacerbated resource scarcity, resulting in weak economic performance that is worsened by the application of inappropriate technologies and underdeveloped human resources. Financial resources that could stimulate the development of non-traditional resources and diversify the economy have not done so. Instead, owing to the north-south divide, the emphasis of national resources remains focused on security, and not much needed development of both north and south Sudan.

Sudan has a population of 30.3 million people based on the 1993 census, with an annual growth rate of 2.6%. The population is projected to reach 58 million by the year 2025. The average population density of Sudan is one of the lowest in Africa. Economic development in the Sudan is uneven and is concentrated in urban centres in the north and along the Nile River, where most of the population is concentrated. Population pressure in these areas is increasing, leading to outbreaks of social, religious, ethnic and economic tension.

Sudan comprises flat plains overlaying the Basement Rocks, found in most of Africa, and the Nubian Sandstone. The soil regimes include the Desert Zone, the Qoz Sands in the north and Rocky Plains to the east, the Central and Southern Clay Plains and the Hilly Upland areas in the middle of the country. Vegetation cover is defined by fluctuations in climate, particularly rainfall. Most of the north and east have scarce desert vegetation that is subject to high water stress.

The mid-region of the country is divided into two vegetation zones: the Sudano Zone which receives an average rainfall of 400–800 millimetres giving rise to savanna vegetation, and the Sahelian Zone that is south of the Sudano Zone which receives moderately high rainfall ranging between 800–1 200 millimetres.

The south of the country receives above 1 400 millimetres. It sustains most of the forests and vegetation cover in the country. Swampy vegetation and

grasslands occur in the Sudd and Machar Swamps in the south of the country.

Agricultural production was the basis of the Sudanese economy over the decades until the recent exploitation of oil reserves in Unity state. Agricultural policy pre- and post- independence emphasised cash crop production. However, with recurrent droughts and famine, government policy in the agriculture sector attempted to strike a balance between cash and food crop production with the joint aim of enhancing food security and promoting economic growth.

Large-scale mechanised agricultural production in the mid-regions of the Sudan, supplemented by irrigated agriculture was emphasised in Sudan under colonial administration. As the north is dominated by arid and semi-arid lands, agricultural production was intensified in the mid-regions of the country. This resulted in extensive degradation of soils and limited access to land for peasant farmers who historically inhabited the region. Consequently, there is increasing pressure for these populations to push southwards in search of arable land. Diminishing productive land in the north may be the reason for the northern government policy of annexing southern regions. In 1958, Southern Blue Nile was taken from the southern province of Upper Nile; Kafia Kingi was annexed from Bahr El Ghazal and Bentiu was almost annexed to the north by Numeiri.

Agricultural intensification and modernisation adversely affected traditional peasant farming by inflicting severe social and environmental changes on peasant communities. As a result northern Sudanese peasants have abandoned customary natural resource uses in favour of other unsustainable methods. In addition to the intensification of agricultural practices, harmful uses of natural resources are spreading due to a growing population and the absence of a comprehensive national land use policy.

Land tenure in the Sudan remains contentious. There is general recognition that property rights are, and have been, based on customary rights and value systems. However, the interpretation of customary rights varies. Formal land registration was initiated in 1925 under the Land Settlement and Registration Ordinance. In 1970 the Unregistered Land Act was enacted, which placed all unregistered land as of 1970 under the ownership of the government. The Act placed most land, including what was perceived as tribal or communal lands, under the control of the government. However, the Land Registration Ordinance maintains that customary rights to land can be invoked under various legal provisions. The allusion that customary rights to land must first have a proven legal basis is perceived to be an inherent contradiction within the Act for communities in the Sudan who subscribe to customary laws and value systems.

Sudan consumes the energy equivalent of 13 million tons of petroleum, of which 83% comprises traditional biomass fuels such as wood and charcoal.

Most of rural Sudan remains dependent on these traditional fuels under dwindling forest and vegetation cover. Hydroelectricity accounts for approximately 5% of energy production and petroleum consumption accounts for 12%. Sudan has exploited 53% of its estimated hydropower potential.

Valuable mineral resources may be found in most parts of Sudan. These include gold, silver, uranium, chromite, iron, bauxite, tin, copper, zinc, iron ore, lead manganese, granite, marble, kaolin and gypsum. The development of the mineral wealth could expand and diversify the economic base. However, the exploitation of these resources may create further fissures between different groups in the country, as was the case with oil exploitation. The prevailing notion of 'national resources' under the current federal structure is more acceptable for northern communities than southern communities seeking greater control and management over their resources.

Access to water contributed to the recent phase of the Sudanese conflict. Though the River Nile traverses Sudan, water stress attributed to access and quality of water remains high. The Nile, including its tributaries, the White and Blue Nile and River Atbara provide domestic, industrial and large-scale irrigation waters. There are four man-made water reservoirs including Roseires, Sennar, Khashim El Girba and Jebel Awlia.

Due to the flat topography of most of the Sudan, there are swampy areas that have arisen owing to slow and low movement of water especially during the floods: the Sudd Swamp, the largest swamp in Africa, and the smaller Machar Swamp. These swamps permit a high level of evapo-transpiration reducing the feed to the River Nile and its subsequent flow.

Ground water resources include primarily the Nubian Sandstone, which is shared between Libya, Egypt, Chad and Sudan. Libya, however, has embarked on an ambitious groundwater extraction project – 'the Great Man-Made River'. This massive water development scheme draws its waters from the Nubian Sandstone via 4 000 kilometres of underground pipelines and 2 000 kilometres of ducts from 270 wells in east-central Libya for irrigation, domestic and industrial use in Benghazi and Sirte. The Nubian Sandstone aquifer is essentially a non-renewable resource estimated to be 15 000 years old, having percolated down during the glaciations of northern and central Europe. Present-day recharge rates range from minimal to nil in most parts of the aquifer. Water stress in all four countries is high and therefore the demand for aquifer water from the Nubian Sandstone is projected to increase significantly, making it a potential source of trans-boundary conflict.

Furthermore, there are increasing environmental concerns over Sudan's development of large-scale irrigation projects – such as the Gezira Agricultural Scheme– which have resulted in high levels of siltation and water pollution. These impacts affect the potential use and the users of residual water downstream. High levels of salinity resulting from irrigation have likewise accelerated soil deterioration.

Sudan has not yet developed a national master water plan to rationalise the use and management of water in the Sudan. Failure to do so may manifest itself through acute water shortages and rising conflicts among competing water users.

Environmental Management

Formal environmental management in Sudan was initiated during the British-Egyptian condominium rule. The British Rule from 1898–1956 protected, controlled and managed the environment, establishing rules and policies to conserve wildlife, guard against over-fishing, destruction of forests, savanna and swamp environments that provided habitat to wildlife. The British also established game parks and game reserves. However, Mayak notes that environmental management declined in post-independence Sudan.

Environmental management and awareness increased after the Stockholm Conference in 1972. Several units were established within key ministries to manage various aspects of the environment, such as the Forestry Department, Pastures Department, Land Use Committee, Natural Resource Commission and Water Resources Administration. Various development strategies and programmes were adopted in post-independence Sudan but did not fully address the issue of environment and natural resource management. The Economic Recovery Programme (1978–1985) supported by the World Bank under Jaffar Numeiri created an over-regulated economy that in effect reduced production under state-owned large-scale production systems.

A comprehensive approach to the management of the environment was initiated in 1986 at the National Economic Conference and adopted in the Four Year Economic Salvation Programme (1988–1991) under Sadiq Al Mahdi which initiated economic liberalisation in the Sudan. However, the programme stalled following the coup in 1989.

The Three Year National Economic Salvation Programme was adopted by the National Islamic Front (NIF) Government with the assistance of the International Monetary Fund (IMF) as a medium-term measure to reactivate the economy and create an environment for external investment and foreign aid. The current National Comprehensive Strategy (1992–2002) adopted a comprehensive long-term liberalisation policy. It established a High Council for the Environment and Natural Resources, headed by the president of the republic, to set policies and plan for the management of the environment and coordinate efforts by different agencies towards this effort. Of the 26 states of the federation in Sudan, 10 have established state councils for the management of the environment headed by the state governors or *Walis*. In 1995, a Ministry of Environment and Tourism was established supported by the High Council for Environment as its technical arm. In March 2000, an Emergency Environment Act containing provisions for the protection of the environment

was enacted. Recently, the Ministry of Environment and Tourism with the assistance of the Sudanese Society for Environmental Conservation prepared an environmental planning and strategy document.

Sudan has been a unitary state right from the initial formal system of administration under the Turkish-Egyptian Empire in the 19th century. With the objective of devolving power to local and state levels, federalism was introduced in 1992 through the creation of 26 states covering 150 provinces. Analysts of the federal system of governance argue, however, that while the structure is federal in character, the devolution of economic and political power has not truly been effected, and that greater effort is needed to empower the states and lower levels of government to manage their resources. This failure to devolve control over resources is considered a major factor in the conflict.

The constitution of the Sudan has been changed several times with the objective of rationalising and recognising the full diversity of the Sudan, and achieving political, social and economic security. Reforms have achieved nominal success. Examples include the transitional constitutions of 1956 and 1957 and the Numeiri Constitution of 1973, which included the Southern Province Self-Governing Act of 1972. The New National Constitution that entered into force in 1998 has also been criticised as having strong Islamic inclinations and for centralising excessive power with a strong executive.

Resource ownership and control is centralised under the Constitution of the Sudan of 1998. Article 9 states: "All natural resources under the ground, on its surface or within the territorial waters of Sudan are public property and shall be governed by law. The State shall prepare plans and prompt the appropriate conditions for procuring financial and human resources necessary to exploit these resources." Under the constitution key natural resources remain national resources managed by the federal government.

Legislation on the environment is drawn from statutory, customary and Islamic (*Sharia*) law. However, Sudan has not carried out a comprehensive review of environmental legislation in line with the recommendations of the United Nations Conference on Environment and Development (1992). Contradictions arising from the various sources of environmental legislation, some in existence since before independence, remain an area that could cause conflict over the management of the natural resources.

Issues of politics and power sharing are key to understanding competitions over land and natural resources in Sudan. Although it is relatively easy to acknowledge past inequities but effectively addressing the present undermines the system and endangers vested interests at all levels of the political and economic hierarchies.

Case Study 1: the Jonglei Canal

Top-down development models are an important dimension of Sudan's civil war. According to the United Nations Development Program (UNDP) Strategic Framework Document for Sustainable Water Management, sound and equitable water management practices can have stabilising effects on society, particularly when stakeholders are involved in the decision-making processes. The stalled Jonglei Canal project in the Sudan is an example of a water resource development project that was mooted and initiated without sufficient consultation and sharing of information with local communities. Consequently, it became part of the increasing social, economic and political tensions that started the current conflict in south Sudan.

Jonglei means 'alien god' in Dinka. To many southerners, this 'alien god' was a foreign promise of development imposed upon them, and thus unacceptable.

The Jonglei Canal was first mooted in 1904 by Sir William Garstin of the Egyptian Ministry of Water in order to increase the flow of water from the Nile to meet the increasing demand for water in Egypt. Almost 50% of water passing through the Sudd is lost through evapo-transpiration. The objective of the Jonglei Canal was to harness this water through the construction of a canal and several dams.

The First Nile Agreement between Sudan and Egypt was signed in 1929. The governments of Sudan and Egypt established the Jonglei Investigation Team in 1948 to study the impact of the proposed canal. The study indicated that the canal would have severe impacts on the livelihoods of local communities populating the region, including the Nuer, Dinka and Shilluk, as well as on the ecology of the Sudd Swamp upon which local livelihoods were based.

In 1959, the Second Nile Agreement was signed between Sudan and Egypt increasing Sudan's share of the Nile waters after Egypt built the Aswan High Dam to store and regulate its share of the Nile waters. The two countries established a Permanent Joint Technical Commission for Nile Waters to manage further Nile water projects.

By 1973, Sudan had exhausted its share of the Nile waters yet required more water for irrigation projects in the mid-regions of the country. The Jonglei Canal project was subsequently launched, without sufficient consideration of the likely negative impacts identified by the Jonglei Investigation Team.

Southern communities strongly opposed the canal for the following reasons:

- The canal would greatly change their way of life especially pastoralists whose grazing systems would be curtailed by construction of the canal. The canal would block movement of livestock and wildlife and divide communities.

- Flooding of the canal especially during the rainy season meant that many villages would require resettlement.
- Speculations on the large number of Egyptians (1 000 000) who would be settled in the Jonglei area to build the canal caused fear of an impending occupation of the south by the Egyptians;
- The fear that the ecology of the Sudd would change and that as it drained, it would be utilised for mechanised agriculture by the northern government.

Unlike previous designs of the Jonglei project, the design implemented in 1974 incorporated rural integrated development projects targetting local populations affected by the canal. The projects included the establishment of irrigation farming, cattle centers and social services among other developmental programmes.

As the canal project continued, costs began to mount and ways were sought to reduce expenses. Plans to build bridges across the canal were shelved and flood embankments along the canal were built lower than originally planned, resulting in the drowning of many animals. Moreover the promised development projects were not implemented, deepening suspicion among the southern Sudanese communities. Many southern Sudanese felt that the project was established to benefit north Sudan and Egypt at their expense. In 1983–84 the rebellion by the SPLM/A brought a halt to the construction of the canal.

Perhaps one of the greatest lessons to be learnt from the canal is the need for participation by local communities in the development and implementation of national projects to exploit and develop natural resources.

Case Study 2: Nuer-Dinka Violence

The Nile is the chief geographic feature moulding Sudan's unique historical trajectory. Outside influences followed the course of the Nile Valley as far as the swampy barrier imposed by the Sudd, and then spread outward. The geographic divide of the Sudd separated the Islamicised north from fiercely independent traditional pastoral groups inhabiting the vast flood plain and the environment beyond it.

The Sudd, the swamp at the heart of the Nile, is an environment unlike any other in the world. Water floods large areas for over four months a year, then recedes during an extended dry season forcing the dispersed inhabitants towards the rivers. The region's chief inhabitants are the Dinka – the single largest ethnic group in Sudan – and the Nuer, a closely related community that hived off from the Dinka in the distant past. The long-standing rivalry

between these two communities manifests as an ethnic rift compromising the southern people's campaign for self-determination. The following case study traces the roots of this conflict to the flood plain environment.

The Nile Flood Plain Conflict

Sahlins[14] describes the Nuer as "transhumant mixed farmers with a pastoral bias". The Dinka can best be described as "transhumant mixed farmers with an agrarian bias". The Dinka occupy an eco-zone supporting a more generalised system of land use. Specialised adaptation to flood-prone lower areas poor for agriculture distinguishes the Nuer from their more numerous cohorts. They developed methods for rearing cattle in disease-prone areas, allowing them to concentrate on livestock. In addition to a common emphasis on livestock, both groups also fish, and occasionally hunt wild animals.

Small but critical differences in elevation are the real measure separating the two communities and their subsistence strategies; small variations in altitude across the flood plain produced a patchwork of mixed Dinka-Nuer settlement. Southall describes their distribution from the point of view of the two groups: "the Nuer see the Dinka country as a fringe of their own, while the Dinka see the Nuer country as a wet enclave in the midst of them".[15]

The flood plain itself displays an asymmetrical pattern of variation across seasons, years, and climatic cycles. The unpredictability is a source of social uncertainty that reinforces dependence on the web of social relations so consistently cited to account for the persistence of ethnic identity. Intermarriage and cooperation among these groups, however, are the norm in most cases, and internecine raiding among clans and lineages blurs the rigid aspect of Dinka-Nuer opposition.

These intermingled communities nevertheless stress their differences over the multiple cultural features they share in common. Indeed, while relative harmony may prevail most of the time, the eruption of Nuer-Dinka conflict is the eventuality characterising their relationship since before the first appearance of external forces to the immediate present. The phenomenon arguably lies at the historical crux of the *Dar al Harb* designation. Regardless, the government in Khartoum has benefited greatly from the tendency of Nuer-Dinka hostility consistently to resurface. It is therefore necessary to examine the ecological parameters of this conflict within the civil war.

The Nuer Expansion

Around 1818 the Nuer began to expand at the expense of the Dinka and they eventually occupied most of the lower areas of Nile flood plain. Nuer expansion reached its limits in 1895, representing the single largest case of one community displacing and occupying another group's territory in known history.

The expansion led to a fourfold increase in Nuer territory between 1818 and 1890, to a total area of 35 000 square miles – prompting Kelly to term it as "one of the most prominent cases of 'evolutionary success' contained in the ethnographic record".[16] According to him the inflation of the traditional bride price paid in cattle fuelled this phenomenal expansion. Kelly's and other structural hypotheses, however, become *sui generis* secondary explanations after factoring for how ecological conditions within the flood plain favoured the Nuer livestock-based economy.

This statement provides a theoretical template for focusing on the demo-ecological causes of social behaviour and change. Demographic processes and ecological trends provide basic criteria for analysing Dinka and Nuer conflict over time. Insofar as their resistance is a central factor in the civil war, these processes, trends, and evolving differences among groups help us assess the political ecology of the current conflict.[17]

Several historical caveats are in order before we examine the ecological dynamic underpinning the flood plain conflict system.

The greater flood plain region as the Nilotic cradle land is the source of periodic out-migrations over the past two thousand years. Ancestors of the present-day highland Nilotes are believed to have left during the first millennium AD; the plain's Nilotes began trickling out over 1 000 years ago. Major movements of the river-lake Nilotes, Lwo-speaking peoples who share the most direct linguistic links to the Dinka-Nuer-Shilluk complex, occurred over a period of some 500 years prior to 1840.

These 'migrations' likely involved small groups, clans, and even clusters of households who probably moved only small distances at a time; in all instances they trekked to the south, settling a large swath of present-day Uganda and Kenya. Archaeological evidence indicates the earliest peoples to depart relied upon foraging and fishing; later emigrants were agro-pastoralists. The pattern of migrations generally follows the onset of drier alternations in the long climatic cycles.

Herring observes that "the position of the early Luo homeland(s) cannot be determined with any precision, but it seems likely that it was on the flat swampy clay plains in the south-central Sudan, and/or on some of the larger ridges within this region, and/or on the more elevated periphery of the Ironstone Plateau".[18]

This prompts us to infer that the flood plain and its environs are, despite the difficulties associated with its alternating extremes of flooding and dryness, a fecund and resource-rich area supporting higher population growth than other areas over the long term. The robust population growth during wetter times would have naturally led to conflict during drier cycles when biotic resources decline. For a long time out-migration provided an outlet for when population exceeded the environmental carrying capacity, but during the 1700s most areas to the south were effectively filling up.[19]

The onset of the Nuer expansion corresponded with the closure of this outlet and a period of higher than usual humidity.[20] Wetter conditions in the Nile Basin are magnified in the flood plain, and this together with increasing population densities ostensibly combined to trigger the expansion – the Nuer's specialised adaptation to the swampy lower areas of the flood plain being the other critical enabling factor.

While both groups occupy parts of the central clay plain, the Nuer expansion filled the lowest part of a basin bounded to the south by the Ironstone Plateau and to the north by the Nuba Hills. Nuerland appears to have been a mosquito-laden swamp, poor for cattle, which had not been long occupied prior to the nineteenth century. Dinka areas are less infested by the mosquitoes whose sheer numbers force the Nuer and their cattle into smoke-filled byres at night. The Dinka occupied the higher ground to the north, south and west of the depression, and prospered in respect to relative size of the two populations.[21]

Ecological Factors Facilitating the Nuer Expansion

The environmental differences demarcating the Nuer and Dinka lands engendered significant behavioural and livelihood differences. In the wet season, for example, the Dinka characteristically observe a second phase of transhumance. This is not possible for the Nuer. During the same period they are forced back by the wider flooding of their country into the isolation of their separate villages, which provide the only dry stands for the herds.[22] The distinct ecological habitat of the Dinka, together with a closer relation between kinship and territoriality, allowed the Dinka to stay close to their home camps throughout the year.

Nuer social structure features segmentary lineages, a common feature of nomadic or transhumant groups that need to mobilise political support among kinship units scattered across large areas on a periodic but unpredictable basis. Clan organisation characterises the more sedentary Dinka.[23] These two kinship-based systems represent the traditional *distributive agents* for the resources of the flood plain environment. Though cattle and grain are equally necessary for survival, cattle served as the traditional systems' capital – and bride wealth provided the primary mechanism for redistributing wealth across kin-linked households. The wider distributive requirements of the Nuer lineage system required more cattle than the Dinka.

Kelly's[24] argument that this factor – bride price-fuelled Nuer expansion – is based on the observation that the *ideal* Nuer bride wealth requirements are almost twice the number of cattle the Dinka *ideally* require. The actual Nuer bride wealth payments recorded by Evans-Pritchard[25] in the 1930s were between 20 and 30, whereas 30 or 40 years earlier they had been 40 and often even more. The acceptable number of cattle for Nuer bride wealth payments varied to a degree in relation to herd sizes at the time, which were in turn affected by pestilence and drought.

The Dinka occupied fringes of the basin offering larger dry areas during the rainy season, and correspondingly greater opportunities to utilise agriculture as an element of their economy. The environmental basis of Nuer economic prosperity hinged on control of the best grazing lands, found in the wettest parts of the basin. The Nuer adapted to the "dead flat clay plain" subject to extreme flooding in the rainy season. This area of poorly drained clay soils is only marginally suitable for cultivation and prone to crop failure, but provides the richest pasture for their cattle. At least part of the value of the area was in the diversity of forage grasses.[26]

Their relatively low agricultural productivity forced the Nuer to maximise their herd sizes by whatever means possible, including raiding, in order to substitute milk and meat for plant foods. A greater area susceptible to flooding acted to reinforce the Nuer cattle monoculture, while also presenting an opportunity to increase the size of their herds. Because cattle reproduce at a greater rate than humans, inflated bride wealth levels were a natural outcome of the expansion. But as the data cited above indicates, the number of cattle required could also shrink with shifts in the demographic and environmental parameters.

Bride wealth appears to be a dependent variable that varies with the respective modes of production. The amount of bride wealth paid is a consequence of the need for and availability of labour: mobility increases this need. Because the Nuer are more mobile than the Dinka, more labour is required to manage the cattle. The Nuer's inflated bride wealth was, therefore, also a function of rising labour requirements created by territorial expansion.

A mode of production that secures for its population a greater number of cattle is clearly advantageous in the Nuer environment. This advantage is more acute in times of critical food shortages due to the frequent incidence of floods and occasional drought experienced on the clay flood plain. Nuer grain supplies are particularly susceptible to such disasters (83% are floods); resulting shortages are reported to occur with a four-in-ten probability for several central and Zeraf Nuer groups.[27] The Ghazel-Jebel triangle, occupied by the Nuer Jikany, Jagei, Leik, and Dok, is the "most extreme ecological" environment in the region, and is subject to "almost total flooding in the wet season".[28] Livestock provided a means to procure other food supplies in the face of what were often severe grain shortages.

Even in circumstances where the Nuer strove to maximise the production of animal resources, grazing area alone could not have been the sole focus of Nuer-Dinka competition. Also in short supply in the central basin was dry land upon which a human population could live at the height of the rainy season and shelter their cattle.[29] This explains why the territorial conflict went beyond the marginal lowlands previously utilised by the Dinka on an occasional basis.

The Nuer adapted to their swampy niche, then expanded through a complex of mechanisms that included assimilation and intermarriage. The Nuer expansion was a gradual intrusion into Dinka territory, punctuated by violent thrusts, but followed by longer periods of small-scale raiding at Dinka expense, a kind of parasitic relationship in which the superior-fighting Nuer depended upon nearby Dinka for the production of additional subsistence resources.

Gradually the surrounding Dinka who tired of such treatment became Nuer through a process of assimilation. The frequency at which Dinka survived raiding and were incorporated through capture or voluntary assimilation is in sharp contrast to other patterns of Nilotic pastoral raiding, where the victims (including women and children) are slain.[30] The Dinka were both then and even now the more prosperous party due to their more 'stable' economy. Such a process should not be seen as deliberate 'conquest', but rather, the product of contrasting cultural adaptations to varied ecological conditions.

In summary, the Nuer expansion represents a largely successful systematic effort to reduce population pressure and to improve living standards, or at least to prevent their deterioration. Through competition and low-level exclusion, the Nuer controlled the richest and most variable grasslands while obtaining sufficient high ground for wet season protection and aggregation. The Dinka, who themselves had been expanding to occupy the fringes in a more mixed savanna-woodland environment, sacrificed some quality in terms of pasture, but adapted (in terms of thermodynamic effectiveness) through an increased reliance on agriculture achieved through more sophisticated agricultural practices.

Population density, in the context of the flood plain, must be reckoned according to population size per unit of area to dry land during the flood time of the year.[31] In the light of the hypothesis that the larger region's population was approaching the saturation point designated by existing subsistence technologies, perhaps the Nuer specialised mode of eco-niche production based on cattle represented the only option available during the final century of the precolonial era. Regardless, both Dinka and Nuer populations were thermodynamically effective in relation to exploitation of their particular habitats.

Although both groups were highly vulnerable to environmental fluctuations, the more monocultural Nuer economy was especially so. Salzman[32] underscores that the notion of "egalitarian pastoralists" reflects an economy where there are no permanent shortfalls or surpluses; he further observes that "when most of the productive resources are open and available to all, and are the product of one element of production, that is livestock held as family property, differences in accumulation are likely to be ephemeral".

Proponents of the 'new range ecology' characterise this ephemerality of subsistence resources – shortfall as well as surplus – as a quality of disequilibrium environments, which in turn is cited to explain East African pastoralists' markedly opportunistic orientation.[33] High levels of mobility and

livestock raiding – both to recoup herd losses and for predatory accumulation – exemplify this pastoralist opportunism.

Technically, range ecologists define disequilibrium environments in terms of unpredictable and low rainfall whose annual median is less than 400 millimetres. The flood plain and its long and short cycles of flood and drought arguably constitute, certainly in respect to human settlement, a different but equivalent example of environmental instability. The region's non-linear climatic patterns, unpredictable levels of flooding for several months (four to six in most areas) followed by months of drought, biological vectors supporting a variety of endemic human and livestock diseases, and opportunistic cultural behaviours combined to foster a uniquely dynamic but often dangerous environment.

Historically, surplus realised from its extremes of fecundity and crisis resulting from resource shortfall explain the dynamics of human population growth and movement. Periods of material bounty followed by contracting resources generated both conflict and the export of excess population to the savanna region to the south, where immigrants could find conditions suited to their mixed subsistence economy.[34] At a certain threshold (approximately 500 years ago) this pattern of surplus shortfall triggered the periodic migrations of Dinka-like agro-pastoralists to the south.

The impact of strong Nilotic political institutions across large areas of East Africa via this diaspora attests to conditions of endemic social conflict in the cradle land. Even Francis Deng[35] concedes that Dinka society (and the Nuer by extension) tolerates high levels of social violence. Apparently the outside interlopers visiting the spatially isolated region during the early 19th century witnessed sufficient jostling among its communities to reinforce the *dar al harb* designation.

The counterfactual hypothesis mentioned in the preceding section proposed that centrifugal forces rooted in the southern environment, more than Sudan's ethnic/racial plurality, constitute a major factor sustaining the long-running conflict. The notion of *dar al harb*, from this perspective, subsequently transformed from folk model into ideological justification as the centralised polity developing at the junction of the White Nile and Blue Nile began to systematically exploit southern resources.

The Contemporary Nuer-Dinka conflict

We now assess how the complex of ecological variables and historical trends manifest within the three cycles of the north-south current conflict. This takes us back to the five variables highlighted in the study's conceptual frame: competition for scarce resources, ecological sources of surplus value, distributive agents, ecological trends, and ecological outcomes. The southern region's environmental-historical pathway identified here establishes a foundation for evaluating the role of these variables across the traditional-contemporary continuum.

The traditional end of the continuum emphasises adaptation to unpredictable seasonal extremes, and the influence of the environment's non-linear qualities on subsistence and land use strategies. Lineage and clan structures mediated local resource distribution; raiding and intermarriage served as mechanisms for wider redistribution and spread risk; surplus in the form of livestock was reinvested in wives and kin networks.

But increasing population densities and the Nuer expansion into the region's most problematic ecological niche indicate that by the middle of the century demographic growth was pressing against the region's highly elastic ecological parameters. The Dinka, as noted above, were also expanding on the flood plain periphery. They continue to do so even now – personnel from non-governmental organisations based in Rumbek and Mundry county rank herder-farmer conflict as the leading form of resource-based competition.

The concept of population pressure cannot be divorced from consideration of the efficiency with which productive systems supply a given population with sufficient material means of subsistence. All populations are under some degree of population pressure. An increase in population density does not necessarily result in an increase in population pressure – if the increase in population density is accompanied by a proportionate increase in *per capita* productivity. For example: population density is higher today in Holland than it was in the 14th century, but population pressure is lower.

Herring[36] claims "the stereotyped image" of a Lwo cattle complex has been greatly exaggerated. He observes that cattle are an element of subsistence strategies with important cultural and religious roles, but kept only where they could be maintained. For some migrating communities this component grew in importance but not until the 19th century. Except for the exceptional attention cattle receive from the Dinka and Nuer, he claims, pastoralism was not an entrenched practice among the Lwo. The concomitant observation highlights the Nuer expansion as the high point of pre-colonial subsistence technology specialisation.

During the same period the trend of out-migration to the south gave way to influences from the 'Arab' north flowing in. The penetration of the Nile Basin beneath the confluence of the Bahr Ghazal and Zeraf Rivers circa 1820 marks the turning point. Considering the massive changes and developments overtaking the southern region's inhabitants since that time, the technological stasis prevailing up to the recent present is indeed remarkable. Respondents across the board underscore the 'primitive' state of subsistence production everywhere in southern Sudan. Development of basic infrastructure (such as roads, communications, potable water) is only slightly higher.

The conquering agents of the Ottoman Empire built garrisons along the river, set up telegraph lines, and instituted taxation. Expansion of irrigation agriculture spreading down the river from Egypt demanded labour; the occupying

forces required slave-soldiers for their army. These markets saw previously slender ties of trade based on ivory and other commodities eclipsed by demand for human captives.

Cycle One: Nuer-Dinka violence

These developments instigated the first cycle in the ongoing north-south conflict, and began to undermine the symbiotic ethnic relations existing along the north-south buffer zone in the process. The southerners initially gave as well as they got – until modern European weapons tipped the balance against them several decades later.[37] Southerners supported the rise of the Mahdi, and then assisted the British to depose him,

The relationship between the assimilated north and the south's diverse isolated population subsequently crystallised along the lines of racialist ideology justifying the plunder of southern resources, and initiated the predatory trajectory hardening Sudanese identities into an Afro-Arab polarity. Ottoman agents also brought the legalistic code of the *Sharia*, which Sudanese Muslims found abstract and austere compared to their mystical and syncretistic practices.[38] Previously, the spread of different Sufi *tariqa* complemented the sectarian quality of Islam and local society. The *Sharia* factor exerted a levelling and homogenising effect that also solidified the foundation of north-south conflict.

European contact brought additional changes in the region's infrastructural conditions. The colonial administration maintained a clear passage along the Bahr al Jebel and White Nile, and steamer transport along rivers throughout Nuer and Dinka lands, between administration centres at Malakal, Wau, Meshra'er Req, Abwong, and others. Roads were built and maintained across the clay plain. Nuer and Dinka began to participate to some extent in external commercial markets by selling grain, hides, cattle and other items to merchants. Some have even taken to the role of "keepers of small bush stores".[39]

This observation actually underscores the limited impact of infrastructural development. The real significance of the Nile transport improvements, the rail line to Wau, and the south's rudimentary road network is that this infrastructure facilitated access to the region's natural resources. Since the 1800s the south has served mainly as a reservoir for labour distinguished by the extremely low investment in human capital over time.

Markets are simple and localised, barter is more common than currency, and the circulation of even the most basic commodities (such as clothing, tools, medicine) is restricted to major 'nodes'.[40] The British administration adopted a *laizzez faire* policy for the south; colonial missions provided most of the services available, and even this was interrupted when Khartoum banned missionaries after independence. Outside Juba and the scattered

small administrative islands, southern Sudan has remained in a time warp characterised by social and technological stasis.

Sudan's overall population recorded a sharp dive during the 17 years under the Mahdi, but has grown steadily since. Kelly's inference that the Dinka grew faster than the Nuer during the post-Mahdi period is predicated on the logic that they lived close to most major river ports and administration centers. And though most of the Nuer remained isolated on the periphery, census data from the 1930s indicates a steady increase in their population densities, corresponding to their increase from 247 000 to 460 000 in the short span of 25 years up to the1950s.[41]

Differentials in cattle and cultivation between the Nuer and Dinka remained relatively constant according to empirical data on cattle per capita from the 1950s. Among the Bor district southern Dinka there was a cattle per capita ratio of 1.66, whereas the Lou Nuer had 2.26 cattle per capita[42]. Barbour observes that " In the central part of the region [the Southern Clay Plains] the supply of grain barely suffices for subsistence even in the good years, and when conditions have been bad imports from central Sudan are necessary, paid for by the sale of cattle".[43] More recently, the Nuer have imported from three to six hundred metric tons of grain in years of shortages.[44]

Cycle Two: Nuer-Dinka violence

In the absence of detailed information on the grass-roots impact, we can assume the Anyanya rebellion – the second cycle in the north-south conflict – halted whatever limited progress was realised in the south until it ended with the Addis Ababa Accord in 1972. The following period witnessed an impressive spurt in infrastructural and social development, until the resumption of hostilities by the SPLA in 1983 – the third and still unresolved cycle in the conflict.

The prominence of elites from Equatoria in the leadership of the Anyanya indicates that most pre-independence education occurred in the ecologically stable band spanning the two provinces bearing that name. Many refugees displaced by the war came from the same population. Individuals from the younger generation of these refugees subsequently benefited through education and exposure to outside contacts. Equatoria has been relatively less affected by the current war. The SPLA captured western Equatoria and a portion of eastern Equatoria during the early phase of the war. The government retook Torit and surrounding areas, and most of eastern Equatoria remains under government control.

Dinka defectors from the military and elites provide the core leadership of the SPLA/SPLM. During the peak of its military success the movement also incorporated many affines from the Shilluk, Nuer, and groups in Equatoria.

Despite official statements that the SPLM/SPLA seeks a united Sudan, many rural Dinka see the movement as an organisation defending its interests in opposition to the competing interests of other ethnic groups.[45]

Macro-level data for Sudan is, of course, hard to come by. But we can identify basic demographic, technological, and economic trends – and their consequences. One indication is the population's greater vulnerability to ecological vagaries – particularly in the more remote flood-prone areas. And except for those who migrated to work on large state schemes, most of the population depends upon technologically static mixed subsistence production. Despite other commercially valuable commodities, on the local level the economic importance of livestock and cattle remains paramount.

Lineage and clan retain their function as distributive agents, although the presence of developmental and relief agencies has enhanced the role of traditional chiefs. Social relations are critical for coping strategies, and those who are not well placed in local webs of relations are the most vulnerable in the face of political and environmental vagaries.[46]

The SPLM began establishing border police posts, courts, and other mechanisms of local governance in 1985. By 1989 the SPLA controlled a large area of southern Sudan and could lay claim to a measure of administrative capacity. The resulting political legitimacy and coordinated action by commanders in the field saw the movement achieve impressive results in controlling communal raiding. The inter-tribal peace conference at Akobo in 1990 successfully addressed Nuer, Anuak, Murle, and Dinka hostilities.[47] For a while these successes concealed the leadership's internal wrangles, soldiers' abuse and pillaging of local communities, and the sway of commercial opportunities on field commanders.

But then the SPLA lost ground, and the position of the SPLM began to unravel during the 1990s. What began as an internal political dissonance catalysed the renewal of Dinka-Nuer conflict, and this in turn precipitated the demographic-environmental trends listed above into a series of disasters.

The evolution of the SPLA/M reveals the influence of the flood plain environment. Initially, mutual hatred of the northern regime united the military officers who, like their Anyanya predecessors, turned their arms against the state. But over time ethnically marked but environmentally based centrifugal forces began to erode the movement's solidarity from within. Surplus, in the form of military success of the early 1990s, followed by shortfall in the form of the drought and famine of 1995–96, exacerbated internal dissension; Khartoum then moved to exploit the factionalisation of the struggle.

Cycle Three: the Nasir revolt – Dinka versus Nuer revisited

The most recent episode of Nuer-Dinka violence began with the Nasir Declaration of 1991, which led to the formation of the SSIM/A (Southern Sudan Independence Movement/Army). The resulting war within a war was

clearly the product of struggles within the movement's leadership, and not traditional frictions between the SPLA/SPLM's core ethnicities. Two high-ranking SPLA leaders launched the rebellion; Dr Riek Machar is a Lou Nuer, Dr Lam Akol a Shilluk. Machar and Akol exploited disenchantment with the movement's authoritarian structure and systematic human rights abuse to start a new movement. But what began as a challenge to John Garang de Mabior's leadership precipitated a complicated chain reaction of factionalisation mirroring the south's ethnic divisions.

Though beginning purely as an affair of the south's educated and military elite, the Nasir Revolt had tragic consequences on the ground. The fall of the Mengistu government forced the SPLA to evacuate key bases inside Ethiopia. The government bombed fleeing civilians and a humanitarian crisis ensued. The donor presence became politicised as the southern cause mutated into a syndrome of highly personalised plots and conspiracies.

Although the Nasir Declaration pre-empted Garang's alleged plot to eliminate dissident elements within the movement, Machar himself resorted to similar tactics. If his actions reflected unrestrained personal ambition, Machar saw himself as inheriting the mantle of the prophet Ngundeng.[48] The Nasir 'rebellion' became a more exclusively Nuer affair when Machar dismissed Akol, and drove away or alienated other leaders who had joined him out of genuine disillusionment with the SPLM.

The rebellion quickly grafted unto traditional ethnic hostilities. SSIM/A military presence mainly depended on *Jiech Mabor* armed civilians and alliances of convenience with warlord factions, also being supplied with weapons by the NIF government, like Kerubino's roving militia. Machar's ill-fated scheme to open a corridor to Kenya turned into a cattle-raiding affair displacing large numbers of Dinka in the Bor-Jonglei region. Many smaller communities in eastern Equatoria rejoined the government. The Toposa never left. Although many Nuer chiefs refused to back Machar, some SSIM/A commanders exploited hostilities between the Lou and Jikany clans of the Nuer for personal benefit.

The hasty exodus from Ethiopia had caught Operation Lifeline Sudan (OLS)[49] unprepared, despite plans to preposition food for such an eventuality. Logistical glitches, the government of Sudan bombing of the fleeing civilians, and incidents of locals attacking refugees exacerbated the mayhem – which took place against the backdrop of unconcealed donor distaste for the SPLA/M. Riek Machar exploited OLS officials' antipathy for Dr Garang at this juncture by cultivating a liberal and humanitarian image. One official based in Lokichoggio gave Machar a British military uniform; he sealed his public relations coup by marrying a lissome English woman employed by a child welfare organisation.

This placed Machar in an enviable position to benefit from OLS largess when he launched his anti-SPLA/M rebellion. The role food relief had

assumed at this juncture is further underscored by the fact that, after his falling out with Machar, Dr Akol repositioned himself in his Shilluk homeland.

Drought conditions struck again in 1995. The calamity repeated on a larger scale the civilian suffering experienced during the evacuation of Ethiopian refugee camps in 1991. Communities were dispossessed of their cattle and removed from their fields. Famine and displacement, abetted by factional hostilities, and the diversion of famine relief supplies culminated in a humanitarian disaster that killed an estimated 250 000 people.

Dr Garang's statements and behaviour during this period did nothing to improve his nasty image. Machar's manipulation of the donor-relief factor for his personal benefit helps explain why Garang recently declared the southern cause would have been better off without the NGO presence. Perhaps, but the movement's meltdown enhanced the role of OLS and its umbrella of NGOs.

The Fragmented Present

The deepening southern crisis marking the present juncture in the conflict is best described by the 3 D's – displacement, dependency, and divide and rule tactics adapted to south's fissionary proclivities. The situation evolved along lines consistent with the centrifugal forces expanding into the vacuum, which affected a corresponding shift in the institutional configuration.

The SPLA regained some of the territory lost to the government, but fragmentation of its pan-ethnic structure significantly diminished its offensive capacity to local operations. The south remains a highly militarised region – where the soldiers guard their home areas – until an entrepreneurial commander musters enough resources and/or incentives to mobilise them for an offensive strike. The SPLM top leadership hit a new low after its 1997 shoot-out in a posh Nairobi neighbourhood, the rank-and-file devolving into a network of competing ethnic interests. Local administration stabilised as a front for patron-client ties fuelled by exploitation of timber, gold, minerals, and other commodities.

The state of war prevailing since 1988 has seen the southern region become a chronic basket case dependant upon international relief. The local scope of NGOs as provider of services normally the province of the state increased accordingly. Their importance on the international-grass-roots interface reinforces traditional institutions of clan and lineage; unlike other areas experiencing state entropy or collapse, most local Non-Governmental and Community-based Organisations (NGOs and CBOs) are too few and their capacity too weak to carve out a larger role for themselves.

The mainly Christian organisations that continue to assist the SPLA operate outside the OLS umbrella. The NGOs operating under the OLS are at best

ambivalent about the liberation movement; and to the degree that the south's external 'partners' engage with the SPLA/M, it is through its third arm, the Southern Sudan Relief and Rehabilitation Association. The SPLA's human rights abuses and factional conflicts and the NIF government's opportunistic manipulation and ethnic cleansing campaigns aggravate the problem. Relief and commercialisation and corruption appear to be thriving hand in hand. Or, as a long time OLS staffer commented, food relief flights no longer return empty.

So where does this leave the Nuer and Dinka conflict? Ultimately, internal fragmentation in the movement for an independent New Sudan has encouraged the government to further exploit ethnic fault lines and political rifts. Disruption of the traditional Dinka-Nuer economic symbiosis, which formerly operated despite periodic raids and counter-raids, has left the grain-hungry Nuer the more vulnerable party. The government has filled this gap by extending its divide and rule tactics to the purchase of Nuer military commanders and lineage chiefs. This has facilitated the state's capture of the big prize – unchallenged control of the oil reserves lying under the "dead flat clay plain".

Case Study 3: Private Sector Participation in Oil Production in Sudan

As the previous sections show, the sources of conflict in Sudan are many, and the disparity between the two regions – north and south - is extraordinary. Conflict would likely rage on should oil production not continue. Yet the discovery of oil and its subsequent exploitation has become a major issue in the conflict. The Numeiri government annexed the oil-bearing lands to the north, creating Unity state, upon discovering oil in the south. The government of Sudan considers oil a national resource while the southerners consider the oil a southern resource.

There can be little question that access to and control of petroleum wealth plays a critical role in sustaining and escalating the Sudanese civil war. Arguably, the degree of stability and control enjoyed by the government in the north is at least partially a function of the southern resources it controls.[50]

This case study urges the integration of the links between resource extraction and community insecurity in corporate management decisions, and calls for greater international political will in preventing the sale of valuable commodities – not only oil, but also timber, diamonds, gold and other minerals that are central to conflict in Sudan and elsewhere in sub-Saharan Africa.

Links between Resource Extraction and Conflict

The Sudan civil war is the result of complex and cumulative causal factors. This case study focuses on those rooted in natural resource extraction.

Ecological conflicts may involve:[51]

- control over natural resources;
- means to manage or produce the natural resource;
- means to add value to the natural resource; and
- distribution of income from natural resources production.

In framing this study, it is important to distinguish between the ecological sources of conflict, and the political and economic sources of conflict. Oil is essentially an economic resource. It has little value to the traditional peoples of the region in terms of their survival, representing economic wealth only to the extent that it can be found, extracted from the ground, processed and shipped to industrial centres for use.

Yet the Dinka are the major source of troops for the SPLA/M. Agriculture and pastoralism are the paramount form of subsistence and wealth for the Dinka.[52] Some 39% of the country's GDP comes from agriculture and this sector is the major source of livelihood for the country's people.[53] This case study will explore the impacts of oil exploration and production on the agricultural practices of the Dinka peoples.

Three key issues underpin our analysis of the role of oil production in the Sudan civil war, including:

- access to and control over the oil fields and the land areas they represent;
- the right to participate in decision making over the allocation of oil rights and share in the benefits of oil production; and
- environmental impacts of oil exploration and production and social consequences resulting from these.

This study also concerns itself with one broader question. While the linkages above can often lead to conflict, the link is by no means unbreakable. Many studies illustrate that vulnerability to economic and ecological shocks decreases as economic wealth increases.[54] It is frequently alleged that growth of national income is a prerequisite for poverty alleviation and sustainable development, and that natural resource wealth has a clear role in generating that income. The section below critically analyses this relationship.

Resource Wealth: Cause of Conflict or Source of Stability?

Poverty is the primary source of conflict in Sudan, and conflict in turn entrenches poverty. Three-quarters of the 20 least-developed countries have experienced civil conflict in the last decade.[55] Conversely, "peace is most commonly found, where economic growth and opportunities to share in that growth are broadly distributed."[56]

A recent study by the World Bank indicates that "countries which have a substantial share of their income (GDP) coming from the export of primary commodities are dramatically more at risk of conflict", in particular during periods of economic decline.[57] Moreover, "in some cases, average per capita growth rates actually have been lower [in resource-rich] than in resource-poor developing countries, and some resource-rich developing countries remain among the world's poorest."[58]

Conflicts in Sierra Leone, the Congo and Nigeria demonstrate the absence of a critical factor required to translate resource wealth into widely shared peace and prosperity. While resource scarcity has often been a focus for environmental security research, it forms only one of the ecological sources of violent conflict. It follows that abundant valuable natural resources should provide the basis for peace, yet the opposite situation often applies where resources are abundant.

Foreign direct investment in the petroleum sector can diminish the likelihood of conflict by increasing economic growth. However, the benefits of economic growth resulting from foreign direct investment must be widely distributed if it is to mitigate conflict. Yet the anticipated economic gains from large-scale development projects financed through foreign direct investment are often unevenly distributed, thus exacerbating existing social tensions. It must be critically questioned why the exploitation of rich resources does not result in greater peace dividends.

This gap between natural resource wealth and social prosperity is often explained by the distribution of impacts and benefits. The World Commission on Dams concluded "groups bearing the social and environmental costs and risks of large dams, especially the poor ... are often not the same groups that receive ... the social and economic benefits."[59] A 1998 IFC/World Bank assessment of four natural resource extraction projects in Colombia, Papua New Guinea and Venezuela concurred, stating that "frequently ... national governments reap the most benefit from these projects, while social and environmental costs tend to be borne by local communities."[60] This represents a failure to meaningfully involve affected communities in critical environmental decision-making processes that affect them.

In many instances, the large stream of income from a single natural resource, being extracted almost entirely for export, can distort investment, and leave the country's economy vulnerable to global commodity price fluctuations – actually constraining development.[61] In 1998, for example, the Asian financial crisis led to a 40% decline in Zambian copper sales, its primary export, nearly doubling that country's inflation rate. Diversification is essential in such cases to guard against external economic shocks such as sharp decreases in the value of agricultural commodities and natural resources.

Likewise, a non-democratic government's need to distribute economic benefits broadly in order to maintain social order may be reduced by revenue

streams emerging from resource extraction, which can be used to finance repressive state institutions and to maintain patrimonial networks. Wealth earned through the production of natural resources can be channelled from state coffers to private bank accounts through corrupt government officials. In spite of its oil wealth, for instance, Saudi Arabia's domestic debt exceeds its GDP. Nigeria made US$ 300 billion in oil revenues during the last 25 years, but 60% of its people live on less than US$ 2 a day.[62]

Finally, armed groups may seek to generate revenue or accumulate personal wealth through the production and export of natural resources, and through extortion of 'protection' funds from companies in the region. A World Bank study claims that in many cases, "rebellions either have the objective of natural resource predation, or are critically dependent on natural resource predation in order to pursue other objectives."[63]

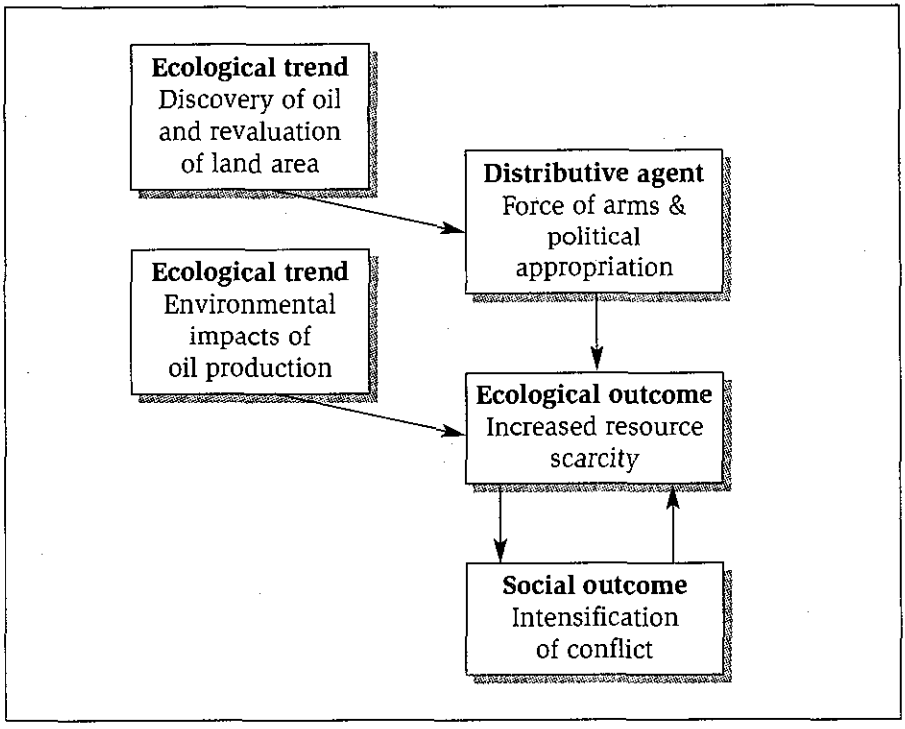
Civil war in Sierra Leone was sustained by its readily accessible diamonds, which rebel groups sold to international brokers to finance arms purchases. Likewise, in the Democratic Republic of Congo, the conflict is now driven by open competition for minerals and other easily looted resources. As a special assessment mission of the United Nations reported to the Security Council in 2001, "the conflict in the Democratic Republic of Congo has become mainly about access, control and trade of five key mineral resources ... Business has superseded security concerns. The only loser in this huge business venture is the Congolese people."[64]

In summary, oil production can reduce the likelihood of conflict through economic development that is evenly distributed between different social and economic groups. On the other hand, oil production may contribute to conflict by generating the inequitable distribution of benefits, as well as cause adverse social and ecological impacts. Moreover, it may provide a source of funds to sustain repressive state institutions, fuel official corruption, or sustain armed opposition.

The diagram on the next page presents the hypothesis guiding this case study. The hypothesis holds that the discovery of oil in southern Sudan has greatly intensified the northern effort – both politically and militarily – to appropriate and control the region for expanded production of oil, while marginalising the area's traditional inhabitants. The remainder of this chapter will seek to support these alleged links.

The chain of causation is believed to hold the following sequence: First, discovery of oil leads to a government attempt to appropriate oil-bearing lands. Second, efforts to appropriate land from groups without giving them a voice in the decision-making process and without what they perceive to be equitable compensation leads to rising social tensions and outbreaks of rebel activity. This rise in social tensions is compounded by the environmental consequences of oil production that degrade the natural environment which sustains subsistence-based livelihoods. Finally, oil revenues finance the

Hypothesis: ecological marginalisation of ethnic groups in oil-bearing regions



government's military action and purchase of advanced weaponry, intensifying the military campaign against the inhabitants of the oil-bearing regions and the rebels. Rebels, for their part, target facilities for oil production and export due to their central importance to the government and to the companies upon which the government depends for revenues.

Discovery of Oil and Political Appropriation[65]

The last two decades of oil exploration and the battle for political control in Sudan are closely correlated. This section explores the history and current allocation of oil concessions in the country. It demonstrates that the discovery of oil in the south led the central government to claim ownership of oil-producing regions that historically were in the south. This sparked the formation of the Sudan People's Revolutionary Army and violent protest by the local inhabitants, culminating with the cessation of oil exploration and production in the Sudan.

Exploration for oil in Sudan began in the late 1950s, and was largely conducted offshore in the Red Sea. Chevron first discovered natural gas in 1974,

120 kilometres south-east of Port Sudan. The remaining offshore efforts were largely unsuccessful. In 1975, Chevron began exploring in south-western Sudan. It was not until 1980, however, that it located significant oil in the Unity oilfield north of Bentiu, followed by the Heglig field in 1982. Today it is estimated that Sudan sits on about 1% of the world's oil reserves, or between 600 million and three billion barrels of oil.[66] This is of moderate size by global standards (about 10% of the North Sea reserve), with a value of several billion dollars, depending on world prices for crude oil.

At this time, Chevron allegedly played a key role in supporting the Numeiri government, lobbying for United States financial and military support.[67] The prospect of substantial oil revenues and the Chevron-brokered United States political backing may have emboldened Numeiri in his dealings with southern Sudan, permitting him to break the accords that maintained peace in Sudan for nearly 10 years.

Under the 1972 Addis Ababa Accords, the central government controlled oil exploration and production, but the southern regional government had rights to all government profits on exports from the region and taxes from private businesses there.[68] In 1980, Numeiri redrew the borders between north and south, creating a new province – Unity state – around the town of Bentiu. This state was allegedly to be shared as an asset for both regions, but in practice brought oil-producing areas under central government jurisdiction, effectively disenfranchising the south.

The creation of Unity state and the decision to site an oil refinery for domestic production in the north instead of the south increased tension further. The formation in 1981 of the White Nile Petroleum Corporation by Chevron and the central government, with no southern representation, sparked further enmity.[69]

In the wake of a petrol shortage in 1983, John Garang and other senior army officials of southern origin defected from the government to form the Sudan People's Liberation Army (SPLA). That year, the SPLA launched its armed struggle against the north, followed shortly by the imposition of *Sharia* law by the Khartoum regime. The civil war has raged between the SPLA and the government ever since.

In the face of this mounting internal dissent, Numeiri may have been seeking through the proclamation of *Sharia* to consolidate his power by winning over the religious right, in particular the National Islamic Front. In any case, opposition to the central government culminated in 1985 with a general strike that paralysed the country, and with Numeiri being deposed by the army in favour of a new election. The Faustian bargain he struck with the extreme right was a foretaste of what was to come, as in 1989 the National Islamic Front (NIF) staged a military coup under General al-Bashir, and took power from the democratically elected government.

In 1984, an attack by the SPLA on the Chevron oil operation in the Unity

field killed three employees and prompted Chevron to suspend its operations, along with France's TOTAL and other major operators. Chevron attempted to resume operations in 1988 – reportedly supporting a Baggara militia in the region to protect its operations – before withdrawing in 1990 in the wake of the military coup.[70]

The decision to withdraw was apparently made as a result of the rising tide of conflict and the falling price of oil at the time. Chevron had tax breaks and political risk guarantees from the United States government, and was allegedly able to cover its losses of over US$ one billion, in spite of selling its stake for only US$ 25 million to Concorp, a Sudanese construction company.[71]

Other companies would not have the benefit of such extensive financial guarantees. Following Chevron's retreat from Sudan in 1992, United States oil industry presence has been minimal and the United States government sanctioned the Sudanese government for sponsoring terrorism and harbouring Osama Bin-Laden, among other suspected terrorists.

The government of Sudan would learn from this first experience, as well. Since the SPLA managed to successfully attack Chevron's oil operations in Unity field in 1984, and bring about the withdrawal of Chevron, a key priority of the NIF has been to prevent similar disruptions and maintain firm control over oil areas. Ensuring a secure environment to enable oil production is a central aspect of NIF economic policy since 1992. Khartoum used a variety of strategies to achieve this, including the military and paramilitary appropriation of land, adoption of a scorched earth policy, the arming or militias and use of hunger to reinforce its control of the oil-bearing lands.

The oil fields are the heart of the contested area between the forces of north and south. Demand for land used by Nuer pastoralists increased greatly upon discovery of oil on the "dead flat clay plain".

Talisman Energy operating in south Sudan alleges that the oil field area "has never known permanent habitation" owing to flooding in the rainy season, being home instead only to nomadic Arab tribes.[72] Yet evidence suggests to the contrary that the area may have been home to both Dinka and Nuer groups, who competed for access to land for grazing livestock and for settlement. Competition between the Dinka and Nuer intensified following the arrival of oil companies. According to one assessment by the Canadian government, "while there have always been pressures on the Dinka in the Heglig-Ruweng area, with Arab nomads driving their cattle south and fighting with the Dinka against the Nuer, the situation worsened with Chevron's arrival in 1976."[73]

In February of 1992, the government of Sudan began military offensives to clear villages in the Unity region through December 1993, allegedly to prepare the area for resumption of oil production.[74] According to Christian Aid, "across the oil-rich regions of Sudan, the government is ... clear[ing] the land of civilians."[75] These offensives continued in and around the oil producing

areas through 1999. It is reported that between April and July 1999, the population in Ruweng county fell by half. Leonardo Franco, UN Special Rapporteur, concluded this was a strategy by the government of Sudan to create "a swath of scorched earth" around the oil fields. According to the Canadian Assessment Mission, "Over the years, the series of attacks and displacements are leading to a gradual depopulation, as only a percentage of those who flee return."[76] According to the United States Committee for Refugees, some 55 000 newly displaced peoples fled the oil zone in 2000 and early 2001.[77]

Lundin Oil, a Swedish oil company, has a 40% stake in Block 5A. Allegedly, in order to guarantee the safety of the oil company's operations and clear an area for a road to the concession, the government waged war against the local communities, who were forcibly evicted and their villages razed.[78] Likewise, Talisman Energy, a Canadian energy firm, was accused of allowing Sudanese government defence forces to use the company's airstrip to launch raids on surrounding villages, in order to secure oil-producing areas and infrastructure, using government helicopter gun ships and bombers.[79]

In 1989, the Bashir government passed the Popular Defence Forces Law, which provided for paramilitary training and the creation of militias to carry the *jihad* against the Christian influence in the south.[80] In the regions of Bahr-al-Ghazal and western Kordofan, the government armed the Murahaleen, bands of nomadic Arab tribes, forming militias "funded and militarily deployed by the Sudanese Army" in order to protect its oil concessions.[81] According to the UN Special Rapporteur to the Human Rights Commission, "the Murahaleen do not only target rebel camps or armed individuals, but also civilians, in a very intensive manner. Usually, food crops are destroyed, men are killed, and women and children are abducted."[82]

The government of Sudan also recognised the need to identify southern allies to fight on their behalf to protect oil-producing areas. To that end, the NIF exploited the volatile SPLA movement. Under the government's 'Peace from Within' process, several former SPLA commanders broke with John Garang and signed a separate agreement with Khartoum in 1997. The agreement promised to give them 75 percent of oil proceeds – a pledge that is still embodied in the country's constitution. Manipulating the rivalries between these commanders and John Garang of the SPLA, Bashir offered them high posts in the government. This strategy was designed to draw their forces onto the side of the government and establish a buffer zone of NIF-friendly forces between the SPLA and Bentiu.[83]

The government of Sudan has granted only limited access to humanitarian organisations operating in the oil-producing areas, arguably allowing hunger to complete the 'scorched earth' policy. According to the World Food Programme, the town of Bentiu experienced a 24% malnutrition rate in 2000. "Sudanese government officials regularly blocked relief assistance to about

15 locations"[84] including to the Nuba Mountains, and in 1999 many humanitarian organisations were forced to evacuate from Bentiu.[85] The Sudan military also targetted humanitarian vehicles and food distributions, a practice condemned by the UN Special Rapporteur to the Human Rights Commission.[86] By all indications fighting has escalated in recent months following the signing of the Machakos Protocol.

Recent Oil Exploration and Production

The success of the NIF government's policies to secure control of oil-producing areas must be viewed in relation to the rush of oil companies to claim concessions in southern Sudan. In 1994, Concorp sold the Chevron concession to the Canadian State Petroleum Company, which was bought out by Arakis Energy, a firm subsequently purchased by Talisman Energy in 1998. Talisman (formerly British Petroleum Canada), with a particular expertise in sophisticated exploration and production techniques, is the world's third largest independent producer of oil. The purchase of Arakis made Talisman 25% of the Greater Nile Petroleum Operating Company (GNPOC).

By the end of 2001 GNPOC comprises four companies controlling 12.2 million acres of concession land and a US$ one billion pipeline extending from the oil fields in Bentiu to the Red Sea coast at Port Sudan.[87] The Chinese National Petroleum Company has a 40% stake, with Malaysia's Petronas Carigali holding 30%, Talisman with 25%, and Sudan's national oil company Sudapet holding the remaining 5%. Yet the GNPOC is not alone operating in the Sudan. At that point many of the major oil companies were active in Sudan, namely:

- Agip (Italy)
- China National Petroleum Corporation (CNPC)
- Elf-Aquitaine (France)
- Gulf Petroleum Corporation (Qatar/Sudan)
- Lundin Oil/IPC (Sweden)
- TotalFina (France/Belgium)
- Mobil (USA)
- National Iranian Gas Company (NIGC)
- OMV-AG (Austria)
- Petronas (Malaysia)
- Royal Dutch Shell (Netherlands-United Kingdom)
- Talisman Energy (Canada)

Currently, over 240 000 barrels of oil are produced daily in Sudan, contributing as much as US$ 500 million per year to government revenues. It seems

likely that in the interests of global energy security, and in view of current dependence on oil from the Middle East, the importance of Sudan as an alternative source of oil will grow, and with it, the proportion of southern territory (already producing some 80% of the country's total production) consigned to oil exploration.

Environmental Impact of Oil Exploration and Production

The environmental consequences of oil production are another source of conflict between the government and the local communities. Environmental degradation contributes to resource scarcity, and thus to the loss of traditional livelihoods for the Nuer and Dinka pastoralists.

Large-scale oil production and transport has a significant impact on the landscape and local environment. Contamination of soil and water is a common consequence of oil production, particularly in locations where environmental regulations are non-existent or not enforced. In Ecuador, for example, oil and water separation stations in the Oriente generate more than 3.2 million gallons of liquid waste each day, most of which has been discharged untreated into the environment.[88] Groundwater is particularly susceptible to contamination from the 'formation water', extracted along with oil during drilling. This 'formation water' is contaminated both with oil and with heavy metals and is therefore toxic.

Further impacts stem from the burn-off of excess natural gas, which had a devastating effect on water quality and biota there and in other regions as well, most notably Nigeria.[89] This burning releases methane, sulphur dioxide, and toxic compounds. The high temperatures can also exacerbate the risk of fires.[90]

Oil spills are also a concern. According to the Ecuadorian government, the trans-Ecuadorian pipeline has spilled about 17 million gallons of oil since it began operating in 1972.[91] This has not only a direct environmental impact, but raises the potential for large explosions as well. With regard to the Sudan pipeline, the potential for accidental leakage, and for intentional leakage resulting from rebel sabotage, has not been assessed. It should be noted, however, that the livelihoods of many southern peoples in Sudan rest on unpoluted Nile water.

According to *Sudan Update*, Talisman's Environmental Impact Assessment and Emergency Response Plans are not public.[92] As a result, it is difficult to know what impacts are projected, and what mitigation measures are in place. What can be alleged with some certainty, however, is that the willingness and capacity of the government of Sudan to mitigate the ecological impacts of oil production is low. Likewise, engaging in emergency spill response is very difficult, since it would expose the team to the direct risks of the conflict. In sum, resource scarcities will grow as ecological impacts worsen.

The social consequences of oil production are likewise significant for the conflict dynamic. One source is the result of a rapid influx of workers – including those from competing ethnic groups, bringing with them new diseases, prostitution and other social ills. There are wider ramifications as well. It is reported that approximately 7 000 Chinese labourers were brought over to build the Port Sudan pipeline. Some 2 000 of these are alleged to be prisoners who were promised reduced sentences for their work.[93] The impact of this vast influx of foreigners, working in extremely difficult conditions, has not been documented.

Social Outcome: Intensification of Conflict

According to 2001 report of the UN Commission on Human Rights, "the government [of Sudan] rejected all accusations that oil revenues would be used to fuel the war and claimed that they were instead invested for the development of the south. So far the government has not provided sufficient evidence supporting this claim."[94] In fact, oil revenues have funded military activities against southern rebels and peoples. In the two years since large-scale oil production began in 1998, military spending in Sudan effectively doubled.[95]

According to the UN Special Rapporteur to the Commission on Human Rights, "exploitation of the oil reserves has led to a worsening of the conflict."[96] The report continues "since 1998 the Sudanese Government had been making serious efforts to democratize the country ...[yet] an increase in military activities has also been observed"[97]. The report notes that in May 2001 the government launched its biggest offensive against the rebels in the Nuba Mountains since 1992. According to a 2001 article in the *Washington Post*, "Sudan's annual take from oil ... has clearly tipped a stalemated war in the government's favor. The oil fields are new government garrisons, with soldiers camped every three miles on the main road, and tanks and helicopters in plain sight around airfields."[98]

This case study demonstrates that the conflict in the Sudan has been exacerbated by competing claims to access to and control of oil-producing areas and to the right to participate in making decisions over the allocation of oil concessions and benefit sharing. The conflict also relates to environmental impacts of oil exploration and production, and the social consequences of these.

While southern self-determination was a possibility in the absence of oil and was accepted in the Addis Ababa peace agreement of 1972, the discovery of oil contributed to the destruction of this fragile peace. Oil money is indeed a key component in Sudan's war. As long as revenues generated from oil production are used to finance military activities, there will be no peace. Unfortunately, oil production in Sudan is likely to continue and expand considering the geopolitics of oil internationally.

For example, China's involvement in Sudan entails both political and economic collaboration.[99] China is reportedly desperate to secure oil sources over the long term to fuel its development efforts, which explains the several billion dollars invested in Sudanese infrastructure, including airports and dams. Likewise, it is one of the primary arms suppliers to the government of Sudan. It follows that it is in China's interest to continue sale of arms to Sudan, and for the Sudanese government to stabilise the security of the oil fields. Likewise, in the wake of the September 11 attacks in the United States, OECD countries will be more anxious to ensure a diversified range of sources for oil.

One option for peace building is to involve the private sector in community development and dialogue with local leaders. Talisman Energy, for example, is working in partnership with non-governmental organisations to survey local water requirements and to develop community wells to cover unmet needs. Furthermore, more sensitive operations for producing oil may allow concession lands to be shared rather than cleared of people at the point of the gun. There are many compelling precedents. For example, Placer Dome needed to protect nearly 70 kilometres of electrical cables providing its Porgera mine site in Papua New Guinea with power.[100] Guarding the whole length of the electricity supply network was impractical. Ultimately, through attention to community interests, Placer Dome was better able to ensure security of the power supply than would have been possible through security forces. By engaging positively with the communities in which it operates, a responsible company might actually reduce its need for complicity in violence.

Many companies engaged in Sudan, however, lack the exposure to public and international pressure being felt by Talisman Energy. In spite of this lack of public exposure, should the Khartoum regime ever fall, the remaining oil companies may find their continued operations in the country to be under threat. For this reason companies should begin now to take actions to normalise relations between north and south Sudan, and to address the interests of all relevant stakeholders. They have a potentially vital mediating role to play between the interests of the people and those of the central government.

A shared interest in security in order to benefit from oil revenue might be possible, but only with international commitment to remove – or at least control – the economic incentives for the elite who perpetuate the Sudan civil war for their own ends.

Conclusion

This analysis has outlined some of the ecological underpinnings of what is a long and unresolved conflict, periodically erupting into cycles of predation, rebellion, and violence over the past 150 years. There are many areas requiring

more detailed information, including the nature of resource flows in and out of the Sudan, and the internal variables influencing the polities on both sides of the divide – but there are three general points to be emphasised:

- There are clear environmental and ecological longitudinal determinants of the conflict. The Nile River system created a natural division leading to the polarisation of African-Arab identities. When we treat this variable as a constant, and as a mutually reinforcing feedback loop, the importance of other material variables also emerge as dynamic factors within the current conflict equation. The respective factors of socio-economic centralisation in the north are mirrored by environmental disequilibrium in the south and have exerted opposite impacts over time.
- As a consequence, the state took root in Khartoum, and has gradually grown in strength. The government has manipulated this advantage to its benefit, and the violence arising out of the disunity of the southern movement has played into its hands. It is difficult to ascertain to what degree actual military combat is responsible for the suffering inflicted on the southern civilian population over the past half-century. We can infer, however, that it is the population in the contested border zones – the Abyei Dinka, the Nuba, and perhaps Shilluk to the west – that has suffered most directly from the war; others have suffered from the secondary phenomena it generates.
- From a systems perspective, the conflict has grown more complex and fuzzier with each cycle. Past experience indicates that the ethnic protagonists (e.g. Baggara vs. Dinka) of the border zones can manage local conflict and even achieve high levels of cooperation – when left to their own devices. The beneficiaries of the war, in contrast, are the elites on both sides who camouflage their struggle to control critical natural resources through ideologies of identity and resistance. The most valuable of these commodities by far is the Bentiu oil. Its value deems it unlikely that the north will revert to the former north-south border; it is equally unlikely that the SPLA/M can dislodge the regime from this area by military means.

Sudan's unique position as microcosm of the continent's Arab-African divide acts as a magnet for external forces arraigned on the Western-Islamic divide. Stereotyped perceptions of regional and ethnic differences informing successive political regimes since the Turkish-Egyptian penetration of the southern region generates self-fulfilling feedback into both the north-south conflict cycle and the regional frictions that prolong it. Even if we reject the culture wars thesis as irrelevant, it is not possible to ignore the role of international feedback in perpetuating the Sudan's north-south struggle.

Selective exploitation of information to influence conflict outcomes has become an established tactical adjunct to military strategy. The role of

western media represents another critical feedback loop into Sudan's conflictive conjunction of traditional culture, regional resources, and African-Arab identities. Journalists' selective focus reminds us that sectarian information flows and advocacy interventions often act to reinforce a given conflict cycle. There is the example of the Christian organisation, which by sensationalising the revival of slavery in Sudan, attracts financial support for redeeming African victims. But the cash payments for 'slaves' has increased the numbers of southerners captured for resale. Such examples of negative or unintended outcomes alert us to the methodological pitfalls of advocacy.

Most methodologies for managing or resolving conflict nevertheless subsume some form of advocacy. Simply stated, advocacy is pleading the cause of others; the role of advocate presupposes active engagement.[101] Advocacy can be an efficient and effective problem-solving adjunct to developmental interventions. The record of developmental failures attests to how it can also reinforce and aggravate problems it intended to resolve. While advocacy has almost become *de rigeur* in many developmental contexts, experience highlights certain problems latent in the formulation of an advocacy strategy.

Locally based NGO staff, with strong and reliable sources of information, may be in the best position to activate early warning systems and subsequent humanitarian interventions. NGOs can take a leadership role in establishing information flows from local communities or regions on human rights abuses, which then serve to activate the international community.[102] But the south's extreme material and political weaknesses, prioritising the delivery of food and emergency inputs over other forms of developmental intervention, can also contribute to regional and local conflicts in different ways.

The provision of relief food is often a contentious exercise prone to external and internal bias and manipulation. This holds equally true for the case of the government in Khartoum, the rebel movement, and the communities requiring assistance. Agencies in the north are accused of using food relief as a lever for proseletisation, but the same is also true for many western church and relief agencies operating in the south.

This is primarily an OLS conflict management problem at this juncture. Observations presented in Greathead et al[103] provide a good preliminary guide to some of the problems arising in connection with the delivery and distribution of food relief; no doubt other OLS reports and analyses contain substantial information concerning the issues.

The conflicts engendered by emergency relief led the OLS coordinator to propose that organisations active in the south adopt the 'working for peace' theme in 1999. Though widely accepted as a guiding principle for NGO advocacy, apparently it has yet to be translated into a specific policy, or set of policies.[104] The efficacy of any attempt to integrate relief provision and peace work is obviously a function of coordination among organisational entities not famous for cooperation either on the ground or at higher levels.

Networking and coordination are nevertheless critical to avoid creating tensions between different areas in the course of providing relief and aid.

The need to establish the internal capacity and an institutional framework enabling the inhabitants of the region to benefit from the country's considerable resources is central to the conclusions presented here. There is little to indicate relief has developed local capacity, both in basic areas like transport and grass-roots NGO food distribution. Capital formation, in a land where the NBA's Manute Bol was once reportedly the wealthiest individual, is obviously weak. In regard to developing administrative and private sector capacity, the southern leadership has missed the boat. The 1990s were the SPLM's lost decade, during which they squandered most of their political capital at home and abroad.

Though peace work obviously cannot contend with all the causes contributing to Sudan's conflict cycle, identifying its systemic attributes, including the ecological variables explored here, generates practical criteria for advocacy and developmental programmes matched to local conditions, including the material deprivation resulting from decades of instability and warfare. One lesson underscored by the critical influence of even small ecological variations across an environment argue for the participatory, bottom-up approach to assistance that is fast becoming the new developmental orthodoxy.

Two phases of armed liberation struggle claiming between an estimated one million and 1.5 million lives up to this point make the fact that the south is ensnared in a cycle of violence whose individual and aggregate effects will continue to perpetuate itself beyond the achievement of any political settlement. Mitigations for the current situation, however, are not amenable to macro formulae. For example: the south, as described by one Nairobi-based programme director, "has no roads, no schools, no hospitals and little else in the way of services; the best course of action depends on where one stands in the variegated landscape and the particular lenses through which any given individual views the conflict."[105]

Internal antagonisms among communities in the south represent an embedded source of violence operating largely independent of the issues underpinning north-south opposition. Many such ethnic divisions are traceable to, or co-terminous with, group adaptations to ecological niches. Many of the conflicts crystallising along these fault lines involve competition over scarce resources. This is one source of communal violence; another is the prospect for capture of environmental resources and control of surpluses by ethnic 'distributive agents'. The latent political ramifications of a new ethnic regime replacing the old racial-religious regime, either in the event of settlement leading to a reunited state or to the proposed state of the 'New Sudan' rank high in the minds of southerners in Equatoria and elsewhere.

The Dinka are by far the largest ethnic population in not just the south, but in all of Sudan. Most commentators familiar with the subject reaffirm the

problem of Dinka dominance. Whereas the Anyanya began as an Equatorial initiative, the dilemma is more acute in the current context due to their ascendant position in the SPLA/M. Variables such as 90% illiteracy and the indigenous Dinka cultural complex to conclude that regardless of the SPLM's official ideological stand and content governance policies, for the Dinka such content is understood in terms of their traditional warrior ideology.

Direct dependence on subsistence production highly susceptible to climatic vagaries augurs for an increasing trend of violent competition over natural resources. Factionalisation among leaders and other problems responsible for the localisation of the resistance movement decrease concern of Dinka dominance. There is, therefore, greater likelihood of conflict between the numerous antagonistic ethnic dyads.

Early in 2002 the Church-led Track Two processes, in the form of the New Sudan Council of Churches sponsored Wunlit Dinka Nuer Meetings in Bahr al Ghazal represented the main approach to ethnic conflict management. This, and similar meetings for peace making and reconciliation like the 1994 Nuer Lou-Jikany meeting in Akobo have produced effective but fragile accords. Our analysis of initial conditions, emphasising factors like the instabilities of the flood plain environment and other centrifugal forces (e.g. spatial separation and variation), suggest that underlying ecological causes of local conflict often work in tandem with political factors to undermine such accords over time.

In interviews on the subject, Sudanese staff of northern NGOs tended to presume if not peace, the lowering of hostilities is imminent, and suggested the knowledge exists to make 'getting it right in the beginning' the logical theme of advocacy strategies for southern Sudan. The region's endemic uncertainty and other factors, however, caution against focusing on the positive scenario to the detriment of forces suggesting this might also be the most precarious and dangerous juncture in the decades-long struggle.

Sometimes these intercommunal disputes feed into larger contexts of national war, such as the Baggara Arab and Dinka in Sudan, as well as the Isaaq and Ogadeni in eastern Ethiopia, Somaliland and, during Siad Barre's reign, Somalia. Agriculturalists on both sides of the divide are increasingly in conflict with pastoral groups, such as southward-moving Dinka pastoralists and the Mundri, and the Baggara Arab pastoralists and the settled Fur communities in western Sudan.

Indeed, current empirical conditions mirror the conclusions generated by Fearon and Laitin's[106] macro-level analysis of factors driving modern civil wars around the globe. The authors proposed to test the thesis that the nationalism and grievances of culturally distinct minorities is responsible for contemporary civil wars. Their findings however, contradict the 'highly influential conventional wisdom'. The analysis differentiates between minority and ethnic sub-nationalism and the grievances and ambitions of insurgent

bands; the wars of the post-1989 era are the product of longer-term processes where the presence of the former is statistically inconsequential.

Rather, the material conditions favouring insurgency by the latter emerged as the primary determinant of violent conflict. They state:

> "Ethnic antagonisms and nationalist sentiments may help an insurgent group at the margin, but other factors are much more important. In brief, we argue that insurgency is favored by (1) poverty and slow economic growth, which aid the recruitment of fighters; (2) a rural base area (preferably with rough, inaccessible terrain), and local knowledge of the population superior to the government's, which allows rebels to hide from superior government forces; and (3) a financially and politically weak central government, which facilitates the operation of an insurgent band."[107]

Certainly from the perspective of these economic, environmental, and political criteria, Sudan's southern region remains highly conducive to insurgency. The extensive flood plain is surrounded by bush and savanna divided by a network of large rivers. The south-western rim is dense jungle, the south-eastern rim is a vast tract of rocky hills and dry bush, the south-western belt is lush but conditions are primitive. The south's culturally distinct populations speak a diverse range of languages. Internal transport and communication is extremely difficult. Topography and spatial factors combine with high value timber and minerals to designate it a guerilla's paradise with vital commercial and linguistic links extending beyond the greater cross-border region's several overlapping conflict subsystems.

Most land in Africa is held under customary tenure systems. In many cases, traditional or customary law remains in effect – until the discovery of valuable resources such as minerals or oil, or developments from outside increase its value. At this point new or existing legislation is usually employed to disenfranchise the indigenous occupants. Most national constitutions recognise customary law as secondary to statutory law, and include provisions for enacting the principle of eminent domain in situations where the exploitation of ecological resources is in the national interest. Of course this proviso is not necessary where the government has consigned ownership of unregistered or common properties to the state.

The new demarcation of the north-south border following the Addis Ababa Accords was a primary catalyst for the renewal of hostilities by the SPLA/M. The NIF government also granted Arab Baggara pastoralists legal entitlement to land held customarily by Abyei Dinka, leading to conflict. Sudan is hardly unique in respect to this. The use of legal instruments to disenfranchise indigenous peoples and other disaffected minorities occupying ecologically rich areas was well established under colonialism and persists today.

Even in western democracies, the same outcome obtains due to the uni-

versality of the eminent domain principle and the absence of legal recognition of common property rights where statutory rights may prevail. The plethora of cases and abuses arising across the modern world has fuelled the rise of new social movements that advocate for the rights of indigenous peoples. Pressure by new social movements resulted in the formulation of the UN Declaration on the Rights of Indigenous Peoples.[108] However, the declaration is non-binding. In the Sudan political power and domination is more important to determine land and resource rights. Although the capacities of southern elite to stake claim to land and resources has decreased, as noted earlier, difficult and dangerous ecological conditions in the south underscore the vulnerability of northern ambitions. However, in most instances where minority or opposition groups have successfully claimed land and resource rights, it was through political negotiation. Political negotiation remains the most viable option for southern peoples to claim greater rights.

Political, policy and legal change to strengthen opposition and minority rights, therefore, is the foundation for peace building in Sudan. The international framework to protect and encourage the rights of such groups is weak, yet is nonetheless helpful in establishing norms and principles for negotiations leading to real policy and legal changes.[109] Sudan's diverse social and ethnic configuration means that issues of group and minority rights are central to conflict management and peace-building strategies.

Any agreement, including the implementation of the recent Machakos Protocol, will have to address the issue of land and resource rights as a substantive source of the conflict, with a view to redress ongoing competitions to control valuable ecological capital. The central issues in Sudan's civil war underlying land and natural resources relate strongly to the character, content, and dispensation of governance. The policy recognition of the heterogeneity of the Sudan population in ethnic, religious and cultural characteristics should translate into equal rights and responsibilities for all citizens regardless of gender, religion or race. Reform of critical environmental decision-making processes must inform a fairer political dispensation in Sudan and not be done in isolation. Furthermore, equality between ethnic and religious groups, as well as between different sexes, must be enshrined in any new constitution. More specifically the following issues require attention in policy and legal reform processes:

- Decentralisation of significant economic and political powers to lower levels of government.
- Community empowerment over land and natural resources. This should encompass official recognition of common property rights, official recognition of customary systems for managing land and natural resources and public choice in decision-making processes at all levels.
- Economic diversification in south Sudan to decrease dependence on subsistence production.

- Equity as a guiding principle in allocating rights to land and resources, and the distribution of economic benefits.
- Development of a comprehensive land and natural resource development and use plan through participatory, inclusive and public process. This process should address needed policy and legislative reforms and explore monitoring tools such as Environmental Impact Assessment and Conflict Impact Assessment that can be employed in the development of a comprehensive national strategy to develop and use land and natural resources.

Endnotes

1 J Prendergast, et al, *God, Oil and Country: Changing the Logic of War in Sudan*, International Crisis Group, London, 2002, p 29.
2 Ibid, p 219.
3 The challenge to researching the ecological sources of conflicts in sub-Saharan Africa, as these issues suggest, is to identify patterns of linkage and interaction between environmental factors and conflict that policies may address. See J Lind, R Kitevu, and C Huggins, 'Background Documents: Policy Research on the Ecological Sources of Conflict in Sub-Saharan Africa', African Centre for Technology Studies (ACTS), 2001. Mimeo, p 6.
4 Mungo Park, the first westerner to enter the interior, emphasised the importance of these trade conduits in his 1799 account.
5 Elements of the civil strife Chad experienced after independence point to the structure of north-south antagonism characterising the Sudanese conflict. But upon closer inspection, the Chadian conflict is more a function of colonial empowerment of the agricultural Sara vis a vis the *laizzez faire* administration of northern tribes.
6 One can imagine an equivalent situation where a modern state established in Timbuktu consolidated control over the Sahelian zone and extended its tentacles into more humid areas to the south.
7 The Niger inscribes a west to south-east east loop, the Senegal arcs in a north-westerly direction, and the Volta drains to the south. Florida's St. Johns River, the only other south to north river in the world, is approximately 200 miles long.
8 Quoted in FM Deng, *War of Visions: Conflict of Identities in the Sudan*, The Brookings Institute, Washington D.C., 1995, p 446.
9 E.g. ibid.
10 P Verney, P, *Sudan: Conflict and Minorities*, Minority Rights Group International, London, 1995.
11 R Cohen and F M Deng, 'Exodus Within Borders: the Uprooted Who Never Left Home', *Foreign Affairs*, July/August 1998.
12 M Suliman in D Buckles (eds.), *Cultivating Peace: Conflict and Collaboration in Natural Resource Management*, IDRC with the World Bank, Ottawa and Washington D.C., 1999, page unknown.
13 See A Sen, Poverty and Famine: An Essay on Entitlements and Deprivation, Oxford University Press, Oxford, 1981.

14 M Sahlins, 'The Segmentary Lineage: An Organization of Predatory Expansion.' *American Anthropologist*, no 63, 1961, p 327.
15 A Southall, 'The Nuer and Dinka Are People: Ecology, Ethnicity, and Logical Possibility,' *Man*, no 11, 1976.
16 R Kelly, *The Nuer Expansion: The Structure and Development of an Expansionary System*, University of Michigan Press, Ann Arbor, 1985, p 69. Kelly's book reviews the available history of migratory movements of Nuer and Dinka groups during the last 170 years, establishes a chronology of the impact of Nuer aggression against the Dinka, and documents the failure of the latter to resist these attacks, resulting in the wholesale expropriation of Dinka lands and cattle.
17 Established criticisms of environmental determinism regard it as simplistic and incapable for explaining the varying outcomes that grow out of similar conditions. But it is nevertheless a truism that factors of climate and environmental shifts exert impacts on populations over the longer term that include migration, warfare and conflict, and cultural adaptations. Archaeological data demonstrate that even among prehistoric subsistence populations such impacts and responses are hardly simple (J L Jones, G M Brown, L M Raab, J L McVickar, W G Spaulding, D J Kennet, A York, and P L Walker, 'Environmental Imperatives Reconsidered: Demographic Crises in Western North America during the Medieval Climatic Anomaly." *Current Anthropology*, no 40, 1999); rather, it posits "a complex, causal, and nonlinear relationship between people and their environment. J Haas and W Creamer, Environmental Imperatives Reconsidered: Demographic Crises in Western North America during the Medieval Climatic Anomaly, *Current Anthropology*, no 40, 1999, p 160.
18 R Herring, 'The Influence of Climate on the Migration of the Central and Southern Luo' in A B Ogot, *Ecology and History in East Africa*, Kenya Literature Bureau, Nairobi, 1979, p 81.
19 R R Atkinson, *The Origins of the Acholi of Uganda*, Fountain Publishers, Kampala, 1994.
20 Ominde, 'Ecology and Man in East Africa' in A B Ogot (ed.), *Ecology and History in East Africa*, Kenya Literature Bureau, Nairobi, 1975, p 17.
21 Lienhardt, The Western Dinka, in J Middleton and Tate (eds), Tribes Without Rulers, Routleadge and Paul Keegen, London, 1958, p 100. A Southall, 'The Nuer and Dinka Are People: Ecology, Ethnicity, and Logical Possibility,' *Man*, no 11, 1976, p 491.
22 Lienhardt, op cit.
23 Southall views the differences in Nuer and Dinka social organisation as products rather than causes of the Nuer expansions.
24 Kelly, op cit, p 112.
25 Evans-Pritchard, *The Nuer*, Clarendon Press, London, 1940, pp 82–3. There is also a minimum of about 16 cattle acceptable as payment (at that time), below which the Nuer will not permit marriage.
26 Lienhardt, op cit, pp 99–100.
27 Kelly, op cit, p 97.
28 Southall, op cit, p 470.
29 Evans-Pritchard, op cit, pp 111–112.

30 Cf. R Dyson-Hudson, and J T McCabe, *South Turkana Nomadism: Coping With an Unpredictably Varying Environment*, Ethnography series FL 17-001, Human Relations Area Files, New Haven, Ct., 1985.
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32 P C Salzman, 'Towards a Balanced Approach to the Study of Equality', *Current Anthropology*, no 42, 2001, p 41.
33 I Scones, (ed)., *Living With Uncertainty: New Directions in Pastoral Development in Africa*, Intermediate Technologies Publications, London, 1995.
34 R R Atkinson, *The Origins of the Acholi of Uganda*, Fountain Publishers, Kampala, 1994 and R Herring, 'The Influence of Climate on the Migration of the Central and Southern Luo.' In Ogot, op cit.
35 F M Deng, *War of Visions: Conflict of Identities in the Sudan*, The Brookings Institute, Washington D.C., 1995.
36 Herring, op cit, p 80.
37 Dinka clans in upper Bahr al Ghazal can still identify the 'mark' of captured Arabs integrated into their lineages.
38 In the north, the stage was being set for a protracted struggle between the charismatic leaders of mystical *tariqa* and the forces of international Islamic reform.
39 K M Barbour, *The Republic of Sudan*, University of London Press, London, 1961, pp 243–245.
40 The term 'towns' is a misrepresentative in most cases.
41 Kelly, op cit, pp 63 and 72.
42 Ibid, p 278 note 33.
43 Barbour, op cit, p 240.
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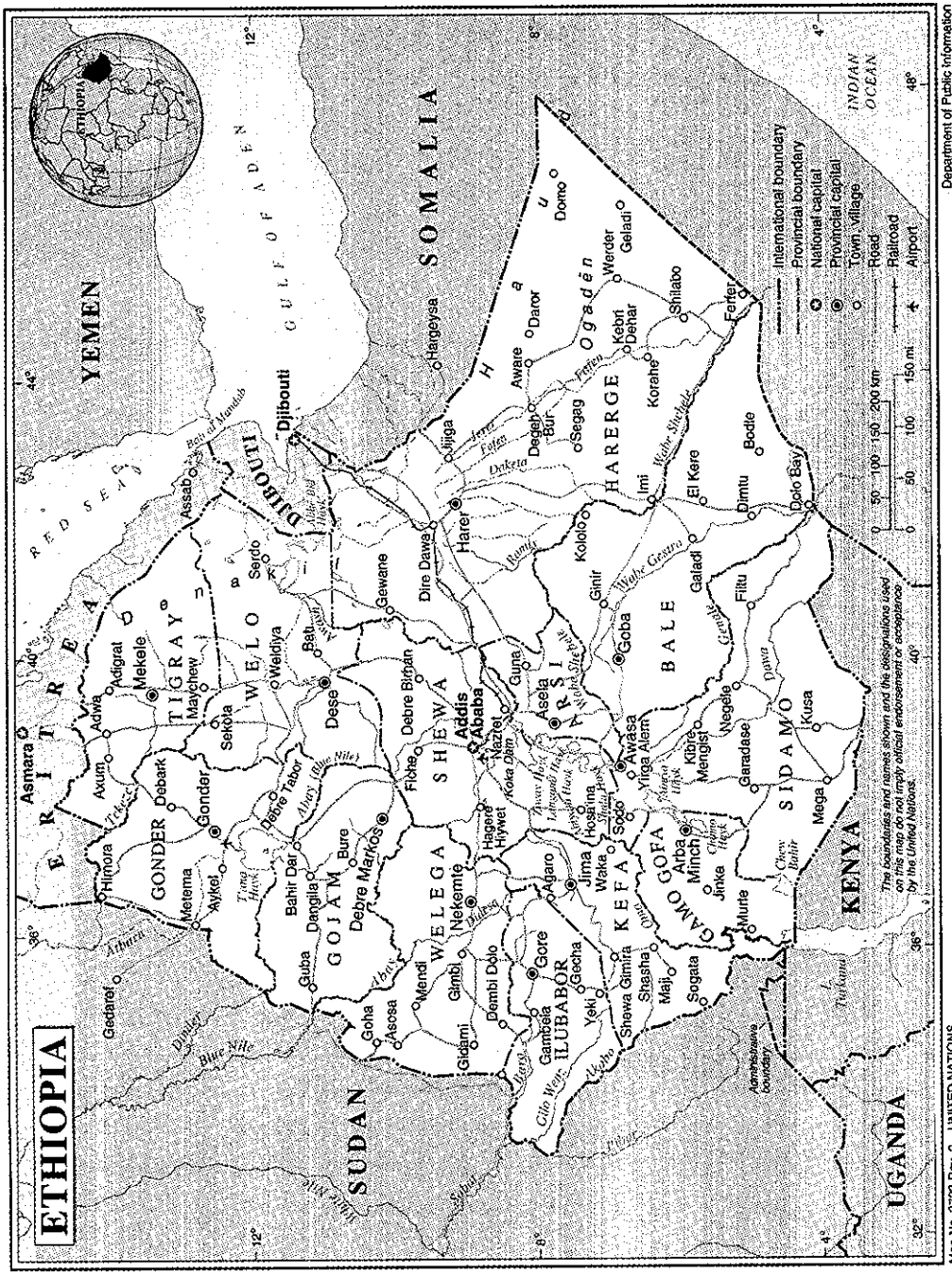
ETHIOPIA
ERITREA
YEMEN
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DJIBOUTI
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KENYA
UGANDA
RED SEA
GULF OF ADEN
INDIAN OCEAN
TIGRAY
WELO
GONDER
GOJAM
SHEWA
WELEGA
ILUBABOR
KEFA
GAMO GOFA
SIDAMO
BALE
ARSI
HARERGE
Ogaden
Asmara
Adigrat
Mekele
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Sekota
Maychew
Assab
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Debre Tabor
Bahir Dar
Dangila
Debre Markos
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Dembi Dolo
Gambela
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Agaro
Jima
Wake
Soddo
Hosaina
Hagere Hiywet
Fiche
Debre Birhan
Addis Ababa
Nazret
Asela
Guna
Gewane
Dire Dawe
Harer
Hargeysa
Djibouti
Bay of Handub
Oliga
Aware
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Degeh Bur
Segag
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Kelafo
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Kibre Menglist
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Yirga Alem
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Tekeze
Atbara
Blue Nile
White Nile
Baro
Sobat
Jubba
Tana
Omo
Ghibe
Wabe Shebele
Fafen
Jerer
Dakata
Erer
Weito
Wabe Gestro
Genale
Dawa
Ganale
Chew Bahir
Turkana
Lake Tana
Lake Rudolf
Lake Abaya
Lake Chamo
Lake Ziway
Lake Shala
Lake Langano
Lake Hawassa
Lake Awasa
Lake Zway
Lake Dabus
Lake Ashenge
Lake Hayk
Lake Tekeze
Lake Ashenge
Lake Hayk

Chapter Six

Spilling Blood over Water? The Case of Ethiopia

Fiona Flintan and Imeru Tamrat

Introduction

"The wars of the next century will be about water"

Ismail Serageldin, Vice-President of the World Bank[1]

The main conflicts in Africa during the next 25 years could be over the most precious of commodities – water. The Nile River, with part of its source in Ethiopia, is considered to be a likely flashpoint for such conflicts.[2] Areas of 'water stress' are likely to see increased competition as populations grow and the available fresh water per capita decreases.[3] Reconciliation is complex because many large rivers such as the Nile are trans-boundary. Indeed, as Wolf confirms, "water ignores political boundaries, evades institutional classification and eludes legal generalisations." In addition, the most recent legal document on international waters, the 1997 Convention on Non-Navigational Uses of International Watercourses, is vague and sometimes contradictory. International agencies historically deal with international water resource disputes to only a limited extent.

However, despite the potential for conflict over water, there is little evidence that water has *ever* been the cause of international warfare. War over water is neither strategically rational, hydrographically effective, nor economically viable. Indeed, not only would such conflict be unlikely from a strategic point of view, but countries, regions and communities tend to share a strong interest in an orderly development of river systems, frame water development and use plans cooperatively. For example, despite their often adverse environmental impacts, dams can reduce seasonal variability of river flow for all connected nations. Hydropower generated in one country can be exchanged regionally and water-based transportation tends to be inexpensive and creates strong ties across countries and regions.

Though international wars over water have not occurred, there is evidence to suggest that the lack of water in certain contexts has led to localised political instability and violence. For example, some analysts suggest that conflict between herders and farmers is increasing.[4] Indeed, farmer-herder conflict over water is documented in Mali[5], the Ivory Coast[6], and Burkina Faso.

While such conflicts might be cited as 'conflicts over water' it must be questioned to what extent water (specifically its scarcity) is the defining and/or dominating cause. Do conflicts occur where water is abundant, or where its availability is variable? What other factors influence and/or control the conflicts or their resolution? What role do conflict prevention and resolution mechanisms play in such conflicts and how successful are they in the ever-changing societies and environments that are found today?

For example, in Ethiopia development, and not water, is the more important source of conflict.[7] Development-oriented conflicts include: disagreements between different users over the allocation of waters, land rights, or maintenance issues; conflicts between users and the authority responsible for the project over inappropriate design of infrastructure, peasant relocations, water charges, or management issues; conflict between project beneficiaries and non-beneficiaries; and, conflict between donor agencies and the recipient country over design, management, environmental impact, and financial issues.[8]

Water resources in Ethiopia are of national importance. Although overall there is sufficient water supply in Ethiopia, great spatial and temporal variability of water limits its development, management and equitable distribution. Not only is there a lack of rainfall in certain years, but also significant seasonal variability. Many areas of Ethiopia are highly vulnerable to extreme ecological stress brought about by scarcity. Add to this the suggestion of potential conflicts over water development, and the contentions over the Nile River Basin and its use, and it is possible to envision conflict over water in Ethiopia.

It is vital, therefore, that the role of water in conflict be thoroughly assessed to inform the design of conflict prevention strategies. This chapter will focus on two important water basins in Ethiopia – the Awash Valley and Nile River basins. Both basins are at the centre of water development in the country and therefore are important axes of competition and conflict.

Background to the Conflict

Ethiopia's location in the Horn of Africa has had a significant impact on its historical development. Geography has shaped to a greater or lesser extent conflict both inside the country and with its neighbours. Any analysis of conflict in Ethiopia must appreciate the rich and manifold linkages between Ethiopia and its neighbours in the Horn of Africa. These linkages had an important bearing on conflict dynamics in Ethiopia in the past and today.

Ethiopia's central location in the Horn is strategic, carrying many advantages and disadvantages. For example, Ethiopia's long and complicated border has been a flashpoint for conflict on many occasions. The eastern and southern borders, in particular, have seen recurrent competition for scarce resources

between interacting, trans-boundary pastoralist groups. These groups were divided by the imposition of artificial boundaries by European imperial powers.

Historical Context

The origins of present-day Ethiopia date to the 2nd century BC in the Axumite Kingdom. The power of the kingdom was initially limited to a small region in the northern highland plateau of Tigrai. It then expanded extensively in all directions and covered large parts of northern Ethiopia and the Red Sea coastline.[9] The existence of the kingdom depended on exacting tributes from the territories it controlled, as well as trade with most parts of the Arabian Peninsula.

The centre of power then shifted south, following the decline of the Axumite Kingdom due mainly to the rise of Islam and disruption of trade routes. This shift led to the emergence of a medieval state, which claimed to descend from 'the Solomonic line' to legitimise its rule. The shifting locus of the state to some degree followed the search for available resources, primarily arable land to cultivate, as well as a need to reinforce the strength of the state and protect it from conquest. The greatest phase of expansion occurred during the 14th century when the Abyssinian Kingdom enveloped most of Tigrai, Shoa and western Ethiopia. One distinctive feature that characterised most of this period is that the main form of rule of the dependent territories was expressed through the extraction of tributes, rather than direct rule. The subject territories or regions were in large part independent from the centre and had their own kings, chieftains, and elites, as well as their own armed forces. Thus, power was diffuse and administration was highly decentralised.

Another important connection with the inception of the state and its ruling classes in Ethiopia was the introduction of orthodox Christianity during the Axumite Kingdom. Christianity was used to legitimise and strengthen the power of the ruling class during the this era.[10] With the continued expansion and consolidation of power through a combination of force and assimilation, the mainly Amhara and Trigrean conquerors spread their language, culture and religion into ever-distant areas, until the 15th century.

In the 16th century Ethiopia experienced a major transformation when Muslim Somali and Afar forces invaded the Abysinnian Kingdom. The Oromo were also attacked during this time. Both invasions greatly weakened the central state and the country dissolved into components of powerful provincial dynasties (with the exception of Shoa, then the southernmost tip of Ethiopia), until the mid-nineteenth century.[11]

The centralising tendency continued under different emperors in the north and Shoa consolidating their power. Centralisation of the state culminated during the rule of Menelik II, who expanded his authority and controlled

most of southern Ethiopia. European imperialism was encroaching into the Horn of Africa at the time. Italy, France and Britain claimed different parts of the Horn with the result that present-day Somalia was partitioned among the three European powers. Britain also controlled Sudan to the west. Italy claimed the Red Sea coast from Assab to Massawa.

In the face of these colonial incursions, Menelik expanded to the south to stave off the threat of further colonial expansion in the region and to ensure independence for Ethiopia.[12] Another factor underlying Menelik's expansion to the south was the desire to control its vast and rich land and natural resources to relieve the growing famine further to the north. Others explain Menelik's expansion as imperialist.[13]

The seeds of conflict were planted as the central state expanded and imposed a new political and administrative system onto customary social formations. This was manifest in several ways. As the central state expanded outward, competition for valuable land and natural resources was common. At the same time, different groups moved inwards to Ethiopia in search of land and resources. The Oromo invasion of the Ethiopian plateau in the 16th century is one example.

The roots of ethnicity can also be traced to this period since the various ethnic groups in all parts of Ethiopia fell under the control of a centralised military controlled by the Amhara and Tigrean, who assimilated minority ethnic groups under their control. Markakis noted that "... forced assimilation not only was rejected by subordinate groups, but also encouraged them to invoke their own cultural symbols, most often in religion and language, in the propagation of what may called 'dissident nationalism'".[14] Ethnicity, however, was not a root cause of conflict in Ethiopia at the time. The various armed conflicts between and among the ruling groups in different areas of Ethiopia were based mainly on regional sentiments rather than on ethnic identities. "In the old Ethiopia, regionalism – as an expression of particularistic sentiments anchored on feudal relations – was a major source of conflict".[15]

Religion was a significant factor in conflict in Ethiopia, particularly in the 16th century when the Muslim invasion had a devastating impact on the then predominantly Christian highland areas, followed by widespread and forced conversions to Islam.

Not dissimilar to the process elsewhere, state formation in Ethiopia was punctuated by violent interstate and intra-state conflict. The nature of conflict between the various regional powers that vied for control of the state was nearly always violent. In the process "divergent groups were integrated, not always successfully, into a central state which reflected the values of an elite strongly Christian orthodox group".[16] This being said, the authority of the Ethiopian rulers before the rule of Menelik II was highly diffuse and shifted between different regions. In the early period, regionalism rooted in feudal relations was the main source of conflict rather than 'ethnicity'. State control

meant acquisition and control of resources by the ruling elite and the state soon became the main focus of conflict.

The southward expansion in Ethiopia occurred at the same time as the imperialist intrusion into the Horn of Africa. In the process of colonialist expansion, boundaries were drawn which divided peoples accustomed to free movement throughout the region. The imposition of hard boundaries significantly restricted movement of peoples accustomed to a different way of life. The Somali people, for example, were partitioned into five states, namely: British Somaliland, Italian Somalia, French Djibouti, British Kenya and Ethiopia. Likewise the Afar pastoralists were divided between present-day Ethiopia, Eritrea and Djibouti. The partitioning of ethnic groups increased conflict between pastoralists and also served to pave the way for interstate conflict and tension between neighbouring Horn countries. One example is the Ishaq-Ogaden conflict over the Hausa pastures that closely relate to the Ethio-Somali conflict.

With the emergence of the modern state during Haile Selassie's reign, central state power was consolidated. Following the defeat of the Italians, Eritrea (formerly an Italian colony) was federated with Ethiopia by the United Nations. The emperor unilaterally abrogated the resolution in 1962. This marked the beginning of an armed struggle in Eritrea for independence that lasted for more than 30 years. During this period, ethnicity became a significant factor in conflict and a rallying issue for dissident groups in Ethiopia. Many ethnic movements sprouted in different parts of Ethiopia. Some analysts point out that the Ethiopian state was not successful in fully integrating the peoples and territories over which it expanded, in particular the pastoralists who inhabited the lowlands bordering Somalia and Kenya, with the result that no 'national' identity would emerge. State penetration and domination of diverse identity groups expanded considerably in the last century but without sufficient emphasis on the identification, participation, and loyalty of the citizen to the embryonic nation state.

It is difficult to make a clear distinction between the internal conflicts arising within Ethiopia and the conflicts with neighbouring countries. The linkages between intra-state and interstate conflicts are manifold. For instance, during the war for Eritrean independence, the Eritrean liberation fronts were headquartered and supported by Sudan, while at the same time the liberation forces of southern Sudan had their bases in Ethiopia. Similarly, the Somali movements in the Ogaden region also keep bases in Somalia.[17]

During the Cold War, military capability and the centralisation of power were common to Ethiopia, Somalia and Sudan. The risk of conflict between states was heightened as they began to forge alliances with the two superpowers. The United States initially established a strategic relationship with Ethiopia in the 1940s and continued until the monarchy was toppled and replaced in 1974 by a military regime, or the *Dergue*, which claimed socialist

loyalties.[18] The geopolitical landscape changed dramatically after the military assumed power in Ethiopia. When Somalia claimed the Ogaden region as part of 'Greater Somalia' and war ensued in 1977, the Soviet Union sided with Ethiopia, increasing military aid significantly to enable the Ethiopians to defeat Somalia. Arms proliferated throughout the Horn during the Cold War, intensifying conflicts both before and after the fall of the Berlin Wall.

Other regional powers also play a role in the Horn of Africa. For example, Egypt's interests in securing control of the Nile waters appears to have played a role in its support of the Eritrean struggle for independence.[19]

One of the main actions of the *Dergue* was to dismantle the feudal land tenure system and redistribute rural land to peasants. It was assumed that land redistribution to the peasants would redress the basic source of poverty and ultimately conflict between different classes in Ethiopia. Although the land reform initially found favour with the rural poor, peasants later opposed the government's forced policy of establishing cooperatives and villages. Opposition movements were also violently repressed, including the Ethiopian Peoples Revolutionary Party (EPRP). The war with the Eritrean liberation movements escalated and other movements emerged, including the Tigrean Peoples Liberation Front (TPLF) that later became the Ethiopian People's Revolutionary Democratic Front (EPRDF). After a series of debilitating wars, the EPRDF, led mainly by the TPLF, toppled the *Dergue* and took power in 1991.

A number of factors led to the downfall of the *Dergue*. The policy of centralisation in both political and economic terms and the armed suppression of political and ethnically based opposition forces had led to popular discontent. The regional movements, increasingly established along ethnic lines, became stronger and finally succeeded in gaining popular support, undermining the legitimacy of the *Dergue*, and leading eventually to its collapse.

With the EPRDF assuming political power, a federal system of government decentralised many administrative functions to regional units, delineated mainly along ethnic lines. The EPLF (Eritrean People's Liberation Front) took control of Eritrea at the same time and formally gained independence in a referendum held in 1993. Article 39 of the Constitution promulgated in 1995 gives "Every Nation, Nationality and People in Ethiopia an unconditional right to self-determination, including the right to secession".

This policy of ethnic federalism and decentralisation is meant to prevent conflicts caused by centralisation and the consequent ethnic tensions that prevailed prior to 1991. Furthermore, decentralisation under a federal system of government is intended to encourage local and regional participation in decision making, thereby improving accountability and legitimacy of the government at the regional and federal level and, in the end, reducing underlying tensions and minimising conflict. It is also intended as a means to widen access to resources in the regions and to ensure political stability.[20]

However, there are political and economic risks associated with decentralisation, particularly considering that regional administrative units are formed roughly along ethnic lines. This may influence the allocation of resources at the expense of some ethnic and religious groups, thereby leading to politicisation and mobilisation along ethnic lines. Decentralisation may also threaten those who hold power at the central level. Another potential cause of conflict may be that ethnic majorities in a given region may neglect the concerns of minority groups inhabiting their region.

It is too early to determine whether the current policy of ethnic federalism will minimise conflict in Ethiopia. As pointed out earlier, the policy itself entails high risks relating to ethnic differentiation and the misallocation of resources.

To date, Ethiopia has been involved in two interstate conflicts, with Somalia to the east and Eritrea to the north. Officially, both conflicts were rooted in competing territorial (boundary) claims. The sources of the Ethiopia-Somalia war in the 1970s date back to the colonial period when the Somali people were divided between Somalia, Somaliland, Kenya, Ethiopia, and Djibouti. Following the establishment of the Somali Republic in 1960 and the beginning of Somali nationalism, the government of Somalia claimed the Ogaden region that was under Ethiopian administration. The government in Somalia wished to consolidate the different Somali clans under one Somali nation. Somalia initially occupied most of the Ogaden and penetrated further into other towns in the eastern part of Ethiopia (but eventually was defeated by Ethiopia in 1978), which were aided militarily by the Soviet Union. Tense relations between Somalia and Ethiopia have existed since the war in 1977–1978.

Although boundary conflict and nationalist fervour were the sources of the conflict between Ethiopia and Somalia, access to and control of resources were closely related to competing claims to the Ogaden.

The immediate cause of the Ethio-Eritrean conflict was over a contested border. However, many assert that the real cause of conflict between the two countries goes beyond the border dispute and can be traced to the prior relationship between the two governments.[21] Before coming to power, the TPLF, which is the dominant party in the present ruling party, the EPRDF, and the EPLF, were allied in armed opposition to the *Dergue*. Moreover, Eritrea gained independence through a referendum in 1993 that was supported by the present government.

Throughout the period prior to the border dispute, relations between the two governments were cordial both on the political and economic fronts. Relations soured in 1997 when the Eritrean government introduced its own currency, the Nakfa. This prompted Ethiopia to state that trade between the two countries should be made in hard currency. Controversy also emerged over port procedures and charges in the Eritrean ports of Massawa and Assab. Ethiopia also found it expeditious to import oil products and other

import items through the port of Djibouti instead of subsidising the refinery in Assab. Border trade issues along the Tigrean and Eritrean border also proved to be contentious because of the requirement of payment for Ethiopian goods in hard currency. Even before the two governments came to power in the early 1990s, some argue there were political and ideological differences between them, exacerbated by their ascent to power.[22]

It is interesting to note that one of the contested areas, Bada, which is found in the Afar Depression, is an irrigated area with four villages. Historically, Eritrea administers two villages and Ethiopia administers two villages. A *wadi* (seasonal river) divides the villages administered by Ethiopia and Eritrea, and was formerly accepted as the boundary. The water was allocated between the communities – 75% for the Eritrean side and 25% for the Ethiopian side. Before the fall of the *Dergue,* Bada was administered jointly by the EPLF (the Eritrea side) and by the TPLF (the Tigrean side). After the defeat of the *Dergue,* the Bada area was left undefended, and the Afar National Liberation Front (ANLF) and the Afar Revolutionary Democratic Front controlled the area from 1989. After 1991 both the Eritrean and the Ethiopian government were fighting the Afar liberation forces to gain control of the area. In July 1997, Ethiopian forces moved into the area but subsequently withdrew. The Eritrean government refers to Ethiopian occupation of Bada as one of its justifications to occupy Badme and other disputed villages on the border.[23]

Soon after the military control by Eritrea of the border areas it claimed to be its own, Ethiopia sought a peaceful solution to the crisis. Rwanda and the United States facilitated an attempt to peacefully reconcile the two sides that included a series of consultations between the two countries, a set of recommendations and a general implementation plan.

On 4 June 1998, the Ethiopian government announced that it accepted the facilitators' proposals. However, though the Eritrean government stated that the recommendations formed a good basis for a comprehensive solution, the process could not be finalised. At the 38th session of the Assembly of Heads of State and Governments of the Organisation for African Unity (OAU), the summit endorsed the proposals made by the facilitators and decided to send a delegation of heads of state to Addis Ababa and Asmara to investigate the cause of the dispute and to advance the facilitators' plan for a peaceful settlement.

After a series of talks with both sides, it was apparent that although both sides accepted the peaceful resolution of the dispute in principle, Eritrea's unconditional withdrawal from the territories it occupied from 6 May onwards remained a sticking point. Ethiopia demanded that Eritrea should withdraw from the territories it invaded before meaningful negotiations for peace could proceed. Eritrea demanded the demilitarisation of the entire border between the two countries without agreeing to withdrawal from the territories it occupied.

The OAU mission continued with its efforts to develop a peace plan with a Committee of Ambassadors coordinating talks with both countries from

30 June to 9 July 1998. The committee prepared a report on this basis and the ministers of foreign affairs of Burkina Faso, Djibouti and Zimbabwe, as well as the secretary general of the OAU, subsequently endorsed the recommendations during a meeting in Burkina Faso the following month. A framework agreement was then submitted to the two, supported by the UN Security Council and the European Union.

The recommendations included:

- a commitment by both parties to put an immediate end to all hostilities;
- the redeployment of the armed forces (Eritrea) present in Badme town and its environs to positions held before 6 May 1998 and the reinstatement of the Ethiopian civilian administration;
- the deployment of a group of military observers to supervise the withdrawal; and
- the demilitarisation of the entire common border.

Ethiopia announced its acceptance of the framework agreement proposed by the OAU delegation on 9 November 1998, while Eritrea remained silent. The situation deteriorated from this point and war broke out towards the end of February 1999. After the first counter-offensive on the Badme front by Ethiopia, Eritrea announced to the UN Security Council that it accepted the framework agreement. However, within days of accepting the framework agreement, Eritrea rejected the Ethiopian demand for a complete and unilateral withdrawal of Eritrea forces from all of its occupied territories.

The war now escalated and Ethiopia launched repeated military offensives in May 2000 against Eritrea. Ethiopia reclaimed all territories previously occupied by the Eritrean forces and occupied further territories inside Eritrea. After a bloody war, on 18 June, Ethiopia and Eritrea signed a ceasefire as a first step toward a comprehensive peace agreement. A subsequent peace agreement signed in Algiers formally ended the two-year war. A UN peacekeeping mission, UNMEE, has been deployed in a demilitarised zone in the border area to monitor the ceasefire agreement, to observe the full withdrawal of troops from the area and to facilitate the demarcation of the border.

Ethnic Conflict

Conflict between different ethnic groups within Ethiopia is common. Between pastoralist groups, these conflicts often involve competition to control grazing lands and water supplies, and they increase during drought. However, the nature of communal conflict in Ethiopia took new forms following the demarcation of boundaries. This demarcation fragmented groups and impeded cross-border movements essential to the viability of customary resource-use systems. The Haud pastures found in the Ogaden region, for example, were long a

source of conflict between the Ogaden and the Ishaq Somali clans, shared as they were among the Ishaq, the Dolbahanda, the Marehan, the Bayedehan and the Ogaden.[24]

Earlier competition to control the Haud pastures rarely entailed large loss of life. Instead, traditional institutions (known as the *diya*) effectively contained and resolved these types of conflicts. Following the colonial scramble for control of the Horn of Africa, conflicts took on a more political nature. The Ogaden, where the Haud pastures are situated, came under Ethiopian territory under the 1887 Anglo-Ethiopian Agreement. Since the Ishaq were under British administered Somaliland and outside Ethiopian territory, claim to the Haud pastures between the Ogaden and Ishaq clans became a territorial dispute.

Markakis explains, "The border was a serious obstacle to the pastoralists of the British colony because it impeded their entry to the Haud. The Ogaden, on the other hand, were increasingly resentful of such intrusions in what they had come to consider their own territory ..."[25] Subsequently, after the border was demarcated, control of the Haud pastures became increasingly political. The Ogaden and the Ishaq shifted their allegiances to the Somalian and Ethiopian governments, as well as rebel groups, as was politically expedient.

Underlying Sources of Conflict

There is no single source of conflict in Ethiopia. Instead, many factors intertwine and overlap to lead to the onset and perpetuation of conflict. Access to and control of resources by the state and other factions is a critical dimension of conflict, although the immediate sources of conflict are typically expressed in ethnic, territorial, ideological, or class terms.

The ethnic conflicts that have featured prominently in Ethiopia to date also stem from the marginalisation of some groups by a state that monopolises control over the production and distribution of resources. By holding such power over resources, the state has the ability to favour one group, historically the highland Amhara and Tigrai ruling elites in Ethiopia, while discriminating against other groups, such as the Oromo or Somali in the south and east. Dissidence and rebellion flourish when certain areas or groups are neglected in the process of development and allocation of resources.

The peripheries in Ethiopia, where most pastoralists live, were neglected for a long time and have never really been economically and socially integrated into Ethiopia. When there was an attempt to do so the development needs of the community itself were not considered. For instance, a highland agricultural economy was imposed on the Afars in the Awash Basin and development in the Basin has favoured commercial farmers and state partners. The interests and development needs of the Afar pastoralists were rarely accounted for, sparking conflict between the Afar pastoralists and the state.[26]

In almost all instances of interstate and intra-state conflicts in Ethiopia, there is little evidence of attempts at peaceful resolution. Many disputes lead to violent conflict. The struggle to control the central state between the various contenders in the early period of state formation up to the downfall of the *Dergue* was, in most cases, violent. Even the territorial dispute between Ethiopia and Eritrea became violent, despite protracted diplomacy and other interventions to prevent war.

One reason for recurring violent conflict in Ethiopia is the absence of democratic institutions to negotiate disputes and mediate competition. There exist various traditional institutions in Ethiopia that have their own customary methods to prevent and manage conflict. However these are rarely employed in high-level conflicts involving the central state, which plays an exaggerated role in every aspect of conflict prevention, management and peacebuilding. Religious institutions could particularly play a larger role in preventing and managing conflict given the respect they command.

Overview of the Environment

Ethiopia is a landlocked country. The total land area is approximately 1.2 million square kilometres. The physical landscape is highly variable and diverse, incorporating mountain chains, a flat-topped plateau (above 1 500 metres above sea level), deep canyons, rivers, valleys and rolling plains. The central highlands are split from the north-east to south-west by the Rift Valley, which is some 40–60 kilometres wide and dotted by a string of lakes. Altitudes range from 110 metres below sea level in the Dallol Depression to more than 4 500 metres in the Simien Mountains.[27] Steep lands (defined by areas with a slope exceeding 30%) are estimated to cover about 33% of the highlands and only 21% of lands have a slope less than 8%. As a result suitable areas for cultivation are limited.[28]

The area of arable land in the country is approximately 13.2 million hectares, or 12% of the total land area. Cultivated lands cover an estimated six million hectares, or 45% of all arable lands. Small-scale farmers occupy 96% of the cultivated area, while the remaining 4% is cultivated by the state or by producers' cooperatives.[29] The total estimated population in 1994 was 63.5 million.[30] The population growth rate is estimated to be 3.1% per annum.[31] Life expectancy at birth is 43 years and the percentage of the population with access to safe water is estimated to be only 26%, averaging only 15% in rural areas.[32]

Population growth is increasing stress on land and natural resources. Between 70–90% of the population live in the highlands and mainly in rural areas, where 95% of all food is produced and an estimated two-thirds of all livestock are raised.[33] The average land holding is only 1.09 hectares in size.[34] Large disparities in income are common in Ethiopia: the poorest fifth

of the rural population (made up of resource-poor farmers, landless, land-poor and pastoralists) have a consumption level equal to that of only one tenth of the richest 20% of the population.[35]

The lowland areas are traditionally dominated by less extensive agricultural practices such as pastoralism. Indeed, it is estimated that there are between 3.4 and seven million pastoralists[36] in the country who occupy approximately 60% of Ethiopia's land mass.[37] The highest population of pastoralists is found in the regions of Somali (53%), Afar (29%) and Oromiya (10%).[38]

Pastoral lands, in general, experience low annual precipitation averaging 400–700 millimetres and in many areas drought can occur on a regular basis.[39] As a result, pastoralism as a land use depends upon scarce water supply from the rivers that flow through the lowlands from the highlands. Access to water has been severely curtailed in recent years due to changing land use practices and attempts to develop large-scale agriculture and irrigation schemes.

Agriculture

In 1995, the Ethiopian agricultural sector (dominated by smallholder agriculture) contributed approximately 55% of GDP. It accounted for 85% of export and 80% of total employment.[40] This suggests a very low labour return. The country's export market is highly dependent on coffee, which generates 60% of foreign exchange earnings.[41] In 1994–95, five crops accounted for the majority of cereal production: maize (15.75%), teff (25.78%), barley (12.29%), sorghum (12.39%) and wheat (10.76%).[42] However, the remaining production is made up of a wide variety of crops. Ethiopia is one of twelve world centres of outstanding biodiversity. Many crops and plants are suspected to have originated in Ethiopia, such as coffee, okra, mustard, varieties of peas, millets, sorghum, yam, watermelon and oriental sesame.

The growth rate of agricultural production is small. From 1992–93 to 1998–99, for example, it was only 2%. Though some attribute this to a lack of fertilisers and high-yielding crop varieties, there are many political, economic, environmental and social reasons for this slow growth. These include a continued lack of investment in small-scale production methods, little support for the peasant economy and rural development, civil war and social disorder, regime change and ineffectual government.

The lack of support given to rural areas can be attributed to an historical bias towards the development of urban centres. This development approach was based on a core-periphery mentality. Indeed, it is suggested that the government supported and continues to support the urban elite at the expense of the underprivileged and less politically powerful rural populations. As a

European Union representative explained, there continues to be a lack of investment and innovation in the agricultural sector. Instead, rural farmers continue to farm using customary methods, cultivating the same crops, using the same techniques, with similar unwanted environmental effects.[43]

In addition, the lack of basic infrastructure, including transportation systems and telecommunication facilities, hampers agricultural production and food distribution. Approximately 20% of the national highway network is paved – a total of 4 000 kilometres – with few interconnecting linkages between adjacent regions. As a result nearly three-quarters of the country's farmlands are more than half a day's walk from all-weather roads[44].

Climate and Water Resources

The most limiting factor in the agricultural sector is climate variability and uncertainty. The impact of climate variability is aggravated by a lack of investment in the agricultural sector and low state and local capacity to mitigate adverse conditions. Climatic changes directly influence the distribution of natural resources throughout Ethiopia and influence the agricultural suitability of many lands. Annual rainfall varies from less than 100 millimetres along the border with Somalia and Djibouti to 2 400 millimetres in the southwestern highlands. The national rainfall average is 744 millimetres. Rainfall generally occurs in a five-monthly unimodal rainy season from May to September in the western part of the country. However, in the southern and eastern highlands, there is a pronounced bimodal rainfall distribution, with the first and generally smaller rains (*belg*) peaking in April, and the second, more intense rains (*keremt*) peaking in August/September. The main dry season extends from October to February, being longer and drier in the north.[45]

Recurrence of drought is a common phenomenon in Ethiopia and affects large numbers of the population (see Table 1), particularly in the lowlands, where rainfall varies from less than 200 millimetres to 800 millimetres. Most recently, the 2000–2001 drought in Ethiopia affected approximately 10.5 million people, mainly in the southern part of the country.[46]

However, from a national perspective, and despite recurrent drought and variable rainfall, Ethiopia has abundant inland water supplies totalling 8 800 square kilometres.[48] At current levels of potential fresh water resources per capita of 1 924 cubic metres per year, Ethiopia is endowed with one of the largest fresh surface water resources in sub-Saharan Africa. It has 11 large lakes and is the source of 14 major rivers. Twelve rivers are trans-boundary, flowing outside the country. The Awash (though this may in fact supply Djibouti's lakes with water under ground) and the Omo River that fills Lake Turkana on the Ethiopia-Kenya border are the only rivers that do not flow outside Ethiopia.

Table 1: Drought history between 1965 and 1992[47]

Year	Numbers affected
1965	1.5 million
1969	1.7 million
1973	3 million
1977	300 000
1978	1.4 million
1979	23 000
1983	2 million
1984	5 million
1985	7.75 million
1987	7 million
1989	2.3 million
1990	6.5 million
1991	6.2 million
1992	0.5 million

The main drainage basins in Ethiopia are the:

- Blue Nile (Abbay) and the Baro-Akobo that flow to Sudan and eventually to the Nile;
- Tekeze-Atbara that enters Eritrea and Sudan;
- Wabi-Shebelle and the Genale-Dawa that enter Somalia;
- Gibe-Omo that flows south to Lake Turkana (of which there is only a small and receding part in Ethiopia); and
- Awash (which flows in the direction of Djibouti) and the central lakes.

Most rivers in Ethiopia are seasonal, with approximately 70% of the total run-off occurring during June, July and August. Consequently, the development of water resources through irrigation and hydropower depends on large storage reservoirs. Dry season flow originates from springs, which provide a continuous supply for small-scale irrigation. River water contains heavy sediment loads. Most rivers flow through deeply incised gorges and navigation is interrupted by waterfalls. Thus, access to a large percentage of Ethiopia's river network is difficult.

The total annual water resources are estimated to be 110 cubic kilometres, of which 76.6 cubic kilometres drain into the Nile Basin. Usable groundwater resources are estimated to be 2.6 cubic kilometres for both Ethiopia and Eritrea, though it is suggested that this estimate is based on little hydro-geological information.[49] A small fraction of groundwater supplies rural water needs. Traditional wells are widely used by pastoralists. The number of these wells, as well as boreholes and *birkas* (concrete storage tanks), has increased due to development aid projects.

There are 11 major lakes in Ethiopia. Lake Tana, situated in the Abbay River Basin, is the largest with a surface area of 3 600 square kilometres. It has a high development potential, including irrigation, hydropower, fisheries, navigation and tourism. Seven of the other major lakes are situated in the Rift Valley in the southern part of the country, which, it is suggested, have experienced large 'natural' fluctuations in hydrological regimes since the end of the Middle Palaeolithic period. Among these, only Lake Zwai is fresh water. Despite this, the lakes are reasonably productive, having large amounts of fish. Extensive deposits of soda ash are found in Lakes Shala and Abyata. In addition, some lakes are popular tourist attractions, aided more recently by the completion of a tarmac highway between the Rift Valley lakes area and Addis Ababa.

Management of Water Resources

Past Schemes

In spite of the large water supplies in Ethiopia, little water is captured and utilised within the country. Most water flows outside Ethiopia into neighbouring countries. Approximately 1% of the total flow of Ethiopia's rivers is used for power production and 1.5% for irrigation. Traditional irrigation methods have been employed for centuries on small-scale schemes including simple river and stream diversions that generally serve small villages. The diversion structures are rudimentary and subject to frequent damage by floods. Constant repairs are required that involve great labour expenditures. These 'water-user cooperatives' should provide each beneficiary with access to water on an equal basis, and equity in water distribution is a strong factor guiding allocations. The schemes are managed either by traditional, elected elders known as 'water fathers' or 'water judges' and/or more recently by Peasant Associations (PAs).

In comparison, 'modern' water development schemes are a relatively new phenomenon in Ethiopia. Development projects began in the 1950s to enlarge national agricultural production, increase power generation and to establish a municipal water supply for Addis Ababa and a few other major

towns. These were concentrated in the Awash Valley (later spreading to the Rift Valley and the Wabe Shebelle Basin) and fed the growth of agro-industrial enterprises, including sugar estates, and fruit and cotton farms. In the past, the technology transfer and operational management were entrusted to a small technical and managerial elite working under large-scale foreign interests. Today, agro-industrial operations are managed as parastatal enterprises. In the majority of cases, the development of agro-industrial schemes did not involve the local farming population, nor traditional knowledge and irrigation methods. As a result, modern water development projects to support agro-industrial schemes have by and large bypassed the peasant farmer.

Large irrigated farms became the responsibility of the Ministry of State Farms under the 1975 Rural Land Proclamation. Almost all small-scale irrigation schemes built after 1975 were made into producers' cooperatives. These further undermined the role and potential of traditional irrigation systems. Today, many producer cooperatives are being privatised or divided as part of land redistribution programmes.

Level of Present Irrigation

It is difficult to know exactly how much irrigated land exists in Ethiopia, though it seems likely that the area of land under irrigation has decreased in recent years, mirroring international trends. Recent estimates put the total area of land under irrigation in Ethiopia at 160 000–198 000 hectares. This estimate includes traditional, communal, private and public schemes (see Table 2) of varying degrees of scale (see Box 3). Many schemes are concentrated (approximately 48%) in the Awash Valley, where 92% of all large schemes were built prior to 1990.[50]

Many irrigation schemes were mismanaged or fell into disrepair. Moreover, many producers' cooperatives were recently abandoned owing in large measure to local opposition. In the Lower Awash Valley, an estimated 13 000 hectares of irrigated lands were abandoned, and another 8 000 hectares were abandoned in the Middle Awash Valley. Even before irrigation schemes in the Awash Valley were widely abandoned, many did not work to their full potential. It is estimated that in the Lower, Middle and Upper Awash, the efficiency of irrigation schemes is only 40% owing to inadequate levelling of land, and mechanisms to control and measure water. Traditional irrigation methods used by smallholder farmers are frequently inefficient as well, owing to a lack of appropriate technology, information, inputs and extension advice. Many schemes are vulnerable to variable water supplies, in part because water supplies are inadequately managed.[51] The low productivity of small-scale irrigation schemes reflects these production constraints.

Table 2: Estimated existing irrigation schemes by category[52]

Category	Hectares
Traditional schemes	64 000
Modern communal schemes	30 662
Modern private schemes	5 414
Public irrigation schemes	61 060
Total area currently under irrigation	**161 136**

Box 3: Types of irrigation schemes found in Ethiopia[53]

- Small-scale (approximately 64 000 hectares in 1995): These consist of a single peasant association (the local administrative area), up to 200 hectares in size, for which assistance in development or improvement is carried out on a self-help basis with some support from the Ministry of Agriculture. About 359 000 farmers benefit from traditional, small-scale irrigation systems.
- Medium-scale (approximately 44 000 hectares in 1995): These schemes range in size between 200 and 3 000 hectares, and include several peasant associations. They require greater government assistance, predominately through the Ministry of Water Resources (MoWR). At first intended as a self-help, low-cost method of agricultural development, they were later modified for commercial production of coffee, sugar and cotton.
- Large-scale (approximately 90 000 hectares in 1995): These are centrally managed state farms for commercial production, and are 3 000 hectares or greater in size. They are planned and designed by the MoWR and constructed under its supervision.

Irrigation Potential

Between 1.8 and 3.74 million hectares of land are suitable for irrigation in Ethiopia, including 165 000 to 400 000 hectares that are more suited to small-scale irrigation development. However, there is a lack of adequate information on irrigation in Ethiopia. The River Abbay in the Nile River Basin has the highest irrigation potential.[54] At present, large and medium-scale irrigation covers less than one percent of the Nile River Basin, which is nonetheless the largest percentage of any basin in Ethiopia.[55]

Estimates from 1988 put the cost of developing large-scale irrigation schemes at between US$ 18 000 and US$ 25 000 per hectare, without accounting for the cost of water storage. Costs for developing medium-scale

schemes are between US$ 10 000 and US$ 15 000 per hectare and US$ 2 300 and US$ 3 400 per hectare to develop small-scale irrigation schemes.[56] The high cost of irrigation development is a great investment constraint that prevents further irrigation development in the country. The government has attempted to overcome investment constraints, but has been unsuccessful thus far. For example, in the early 1990s, the government shifted to a market-based economic policy. A number of medium to large-scale irrigation projects were initiated by the government at the time in anticipation that private investors would continue to develop the schemes as commercial farms. However, investors have not done so and the schemes have been abandoned (see Table 4).

Table 4: Suspended large and medium-scale schemes[57]

Project	Hectares	Remark
Gode irrigation project	8 000	Diversion weir completed
Alwero irrigation project	10 000	Dam completed
Lower Omo irrigation project	10 000	1 200 ha developed but not operational
Meki-Zwai irrigation project	3 000	1 000 ha developed but not operational
Alaba-Kulito irrigation project	3 700	Construction of dam started but abandoned
Borkena irrigation project	3 000	Construction of dam started but abandoned
Angelele irrigation project	3 000	1 000 ha developed
Jijiga	3 000	Completed but not functioning properly
Total	**43 700**	

Rural Water Supply

The provision of water supplies in Ethiopia is among the lowest in Africa. The strong bias toward urban development historically means that the provision of water supplies in rural areas is particularly low. In 1996 an estimated 19% of the rural and 80% of the urban population (31.3% excluding the capital Addis Ababa) had access to safe water. The overall total for Ethiopia is only 26%. In addition, water is rarely treated in rural areas, meaning that access to potable water is restricted to wells and protected springs. Thus the great majority of Ethiopians use unsafe and polluted water, and are at risk for a great variety of water-borne diseases.[58]

A large number of non-governmental organisations and development agencies are involved in projects to enhance rural water supplies, mainly by providing pipes, tankers and constructing dams, wells and/or storage tanks. Although many projects have benefited rural populations, the effectiveness of some projects is questionable.[59] Local ownership of projects is rare.[60] Lack of local ownership means that local peoples have little incentive to help in the upkeep and development of water supply projects. Thus, the infrastructure of many projects deteriorates after the organisation or agency that implemented the project leaves.

Many large-scale donor-funded water development projects have generated greater problems. The donor funded Jijiga Dam and irrigation scheme in the Somali region of Ethiopia, for example, has cost an estimated US$ 24 million to date, but is still not operational. One assessment of the project reported that, "the dam leaks, has insufficient input flow to fill even during heavy rains and is completely unacceptable to the local pastoral community who have demonstrated their displeasure with the project by breaking everything that is breakable and carrying away stones in the sluice-way that are useful for other purposes."[61] The report concludes that unless local issues and concerns are appreciated and addressed, "the dam will be a source of future insecurity in the area".[62]

Power Sector Development and Hydroelectricity

Water management problems and investment in inappropriate development projects are common in the hydroelectric sector as well. Although Ethiopia has a large potential for hydroelectric development, only 1% has been exploited to date. For example, it is estimated that the 'economic' (that which could be exploited at economic costs by present-day technologies) hydroelectric potential is nearly 100 times Ethiopia's demand for electricity. However, the supply system itself is currently capacity constrained, with hydro generation capacity challenged to meet demand in terms of peak power and annual energy output. Variable rainfall and recurrent drought further constrain hydroelectric development. At older installations siltation of reservoirs has reduced storage capacity, thereby accentuating spillage requirements in flood situations and worsening water shortages during dry periods.

Furthermore, many hydroelectric projects were suspended owing to:

- Lack of spare parts for the older plants (with the original suppliers of equipment, all foreign, often having changed addresses or no longer manufacturing the required parts);
- Lack of design details and references to be used in ordering the replacement parts; and
- Shortage of water for running the plants, which are all run-of-river types, especially during the dry season when neighbouring peasants compete to access and use water for irrigating the farms.[63]

Despite this, and in line with the priorities of the new water policy, hydroelectric development is being accorded far greater attention, with effort being focused on the rehabilitation of old hydro plants, the study of new schemes, and the construction of new plants.

Institutional Arrangements

The federal government established the Ministry of Water Resources (MoWR) in 1996 to further develop and implement a new national water resources plan. The MoWR is mandated to develop water policies, and to undertake implementation, operation and regulatory work concerning water. Prior to its establishment, planning and development in the water sector was constrained by the lack of a central institution for coordinating all planning, development and policy related to water. But the design of the ministry has not proved to be efficient.[64]

In June 2000, the MoWR released the Ethiopian Water Resources Management Policy (EWRMP). The overall goal of the policy is "to enhance and promote ... the efficient, equitable and optimum utilisation of the available Water Resources of Ethiopia for significant socio-economic development on a sustainable basis". The basic principles informing the policy are the following:

- Water, as a natural resource, is for the common good of the Ethiopian people.
- Every Ethiopian has a right of access to water of sufficient quantity and quality to satisfy basic human needs.
- Water should be recognised as an economic and social good.
- Water resources development should be rural-centred, decentralised, participatory and integrated in approach.
- Water resources shall be managed according to the norms of social equity, systems reliability, economic efficiency and sustainability.
- Participation of stakeholders, especially women, shall be promoted in water resources development.

The MoWR is responsible for upstream water resources control and development activities, including determining conditions and methods for optimal allocation of water, as well as how water that flows between different administrative regions will be used. The ministry is also responsible for enforcing all water policy and laws. Activities downstream are carried out by different organisations under the general guidance of the EWRMP. Within the regions the responsibility of both urban and rural water supplies has been given to the national regional states. As a result regional governments have established water bureaux and commissions or authorities.

Devolution to the regional level of responsibility for managing water resources reflects the current government's interest in decentralisation as a political-administrative framework. The government's decentralisation policy was initiated in 1992 with National/Regional Self-Governments Establishment Proclamation No. 7, whereby Ethiopia was divided into 14 regions. The number of regions has since been reduced to nine federal region states and two administrative councils. The regional states are Afar, Amhara, Benshangul-Gumuz, Gambella, Harari, Oromiya, Somali, Tigray and the Southern Nations, Nationalities and Peoples Region (SNNPR). Addis Ababa and Dire Dawa are the two administrative councils.

In August 1995 the Federal Democratic Republic of Ethiopia was established pursuant to a new constitution. The official aims of the new constitution are to:

- transform the command centred economy into a 'market-oriented' economy;
- promote continuous economic growth;
- alleviate the structural dependence of the economy on external inputs and promote self-reliance; and
- create an enabling environment for popular participation through the devolution of power to the regions to promote equitable and socially just management of resources.

Decentralisation and the establishment of autonomous administrative regions are meant to bring the government closer to the people. By doing so, it is anticipated that decision-making will reflect local needs, though at the current time the regional governments remain highly dependent on Addis Ababa for their capital and recurrent budgets pursuant to ongoing negotiations with international financial institutions and bilateral donors. This greatly affects their power to make decisions independently of the central state. Furthermore, the present divisions between different regions cut broadly along ethnic lines. Each region roughly reflects the geographic distribution of the dominant ethnic group. The boundaries between several regions are not yet finalised due to the sensitivity of the regionalisation and the complicated legal and policy reform process on which it is based.

The national and regional councils, which are intended to be elected, have the power "to issue designs, directives and strategies for the development and protection of the environment". The executive committee has the power to "make all appropriate efforts to develop, utilise and preserve the national/regional heritage and natural resources of the region pursuant to the general policy guidelines of the [then] Central Transitional Government"[65]. It is assumed that in the future the role of central ministries will be limited to the following functions:

- formulating policy and preparing national sector plans and budgets (including regional allocations);
- ensuring law enforcement;
- undertaking national studies and research;
- assisting and advising regional administrations; and
- entering into contracts and international agreements that have national significance.[66]

In each Region there are specialised sector bureaux that implement sectoral policies and programmes in consultation with the regional executive. As described above, the regional water bureaux are the main institutions to develop and manage water resources in the country. Beneath the regional council, there are democratically elected councils at the *wereda* (district) and *kebele* (village or villages) levels. At the moment these have few human and financial resources, impeding the effective implementation of the government's decentralisation process.[67] The *wereda* has a similar structure to the regional self-government outlined above. National and regional councils have the power to create intermediate administrative structures between the regional and the *wereda* units. Most regions have done so, creating two or more zones per region, although the recent emphasis is to maintain a more decentralised structure down to the *wereda* level.

In relation to management of water resources, there has been no devolution of authority below the regional water bureaux to the *wereda*. This complicates the management, operation and maintenance of water resources and infrastructure at local rural and urban levels. Further constraints include:

- an absence of community management (community participation) units in the organisational structure of the water sector;
- lack of skilled and experienced labour, especially in technical fields; and
- institutional weakness in managing, operating and maintaining existing facilities.[68]

Ethiopia has a long history of insecure 'ownership' rights to land. The present government has initiated some positive policy changes, such as abolishing the frequent reallocations of land by peasant associations that were common throughout Ethiopia during the last government. The constitution affirms that land remains under the 'control' of the people first and then to the government. The purchase and sale of land is prohibited. Landholders are entitled only to usufruct rights[69] to land and resources, such as trees. Any investor wanting to engage in large-scale agriculture must obtain land on a lease agreement from the relevant regional government. No land may be given in a manner prejudicial to the rights and interests of peasants. An investor must also

provide a feasibility study that includes assessment of environmental impacts and proposed protection strategies.[70]

The rights of secondary land users are affirmed under the 1997 Environmental Policy. It states that secondary users have the right to uninterrupted access to land and resources, including trees, water, wildlife and pasture. In addition, the policy affirms the need to protect customary rights to access land and resources, as well as customary uses that are constitutionally permissible.[71]

Nonetheless, it will be some time before these policies are enforced and land-holders and users enjoy the benefits of greater tenure security. The present government has yet to formulate a clear land policy to indicate possible law reforms to strengthen tenure rights for landholders and users. Until the government formulates a land policy and proposed law reforms, most rural populations will continue to have insecure tenure rights to land and resources. Lack of tenure security has discouraged farmers and other land users from making investments in physical infrastructure, planting and maintaining trees, or replenishing soil fertility.

Officially, land is allocated through peasant associations. Moreover, peasant associations are expected to educate their members about environmental protection and sustainable farming methods. In other areas, traditional authorities allocate land, such as in pastoral areas. In Borana, pastoralists rely on deep well complexes for water during the dry season. These wells are recognised as belonging to a particular clan or group of families. Economic and religious life centres on the wells and they are a recurrent theme in Borana politics. Wells require extensive maintenance and no one can use the wells without the consent of the *konfi*, or traditional leader, who manages the wells on behalf of the clan under the 'well council' (*cora ella*).

The *konfi* will rarely deny a migrating pastoralist access to the well since it is imperative to preserve amiable social ties. However, he will instruct the pastoralist when he can water his animals, as well as limit the number of animals that can be watered and the length of the stay.[72] The daily routines at the well are supervised by an officer known as *abba hirega*, 'the father of the watering order'.[73]

Up to now, the development of land and natural resources was not guided by long-term planning. As Shibru Tedla describes, the absence of a planning framework for land and natural resources has resulted in uncoordinated development, with many conflicts between different government agencies. Examples include the extraction of soda from Lake Abijata (a protected area) and the development of a state coffee farm in Bebeka (a priority state forest area). Tedla suggests that "the absence of land use planning has become the root cause of conflict between government and peasants or pastoral people who traditionally depended on land prior to such developments".[74]

The lack of coordination in developing land and resources is apparent else-

where. Examples include the delineation of national parks in areas used by pastoralists and agro-pastoralists, the development of large state fuel wood plantations in areas of mixed smallholder agriculture, the establishment of large-scale irrigation schemes in vital pastoralist dry season grazing areas, the alienation of large areas of smallholder agriculture for state farms, and the establishment of resettlement schemes in areas unsuitable for rain-fed agriculture. In addition, there has been uncontrolled expansion of smallholder agriculture into areas either used by pastoralists for wet season grazing or by the state for conservation purposes. Examples include: the expansion of rain-fed agriculture into the grazing areas of the Afar, Boran and Somali pastoralists; the expansion of agriculture into the natural forests; and the intrusion of livestock into national parks.

Hillman suggests that

> "... the system of centralised decision making has resulted in policies of land use being applied in a 'blanket' fashion over large areas of the country, that in fact differ very greatly in ecological conditions. Further, the available information on the natural resources, climate and terrain of the country is limited, such that there has been no time to carry out the research necessary prior to the application of ... policies and changes in land use".[75]

This has resulted in ill-informed and uncoordinated decision making that in many cases has resulted in unwanted environmental and socio-economic impacts.

Environmental Impact of Poor Water Management

Poor management and coordination of different water uses is manifest in adverse environmental impacts on water quality and quantity. The most significant of these results from many of the large-scale irrigation schemes and other commercial practices that have attempted to harness Ethiopia's water resources. First, the water levels of many lakes have dropped, such as Lake Zwai in the Rift Valley. Since irrigation in this area is continuous, its effect on water levels is magnified during times of low precipitation and high evaporation. Second, several rivers were diverted for irrigation purposes, not only those that flow into Lake Zwai, but also into Lake Abijata. This caused water levels to subside in both lakes because of the reduced inflows. In addition, rivers were also diverted into lakes to *increase* water levels for irrigation, causing dramatic biological and ecological changes. The chemistry of Bishoftu Crater Lake was completely altered, including a three-fold increase in the concentration of nitrate and a more than 200-fold drop in phosphate-phosphorous concentration.[76]

Adverse environmental impacts were caused by commercial practices, such as mineral extraction and/or discharges from various food, beverage and textile factories. For example, in Lake Abijata the loss of water was exacerbated by the discharge of effluents from a nearby soda ash extraction plant. Fish production has reduced considerably since the breeding grounds of fish species that spawn in the shallower parts of the lake were degraded.[77] In addition, there is heavy pollution of waterways due to domestic sewerage. For example, it is suggested that the Awash tributaries from Addis Ababa are 'loaded' with sewerage .[78]

Finally, irrigation in the Awash Valley has worsened salinity of land. Indeed, in the 1980s thousands of hectares of irrigated land in the middle Awash were abandoned owing to salinisation and waterlogging after only five or fewer years of irrigation farming.[79] Lack of appropriate water management practices is widely claimed as the main reason.[80]

Poor water management decisions have had many negative social impacts, particularly for local inhabitants and rural poor. Pastoralists that inhabited lowland areas identified for large-scale irrigated agriculture were expelled from customary key grazing areas, preventing their access to vital water points. Prohibiting pastoralists from using these grazing areas has significantly reduced their ability to cope with chronic water scarcity and recurring drought. Customary mechanisms used by pastoralists to mitigate water limitation and ecological stress are delicate (see Box 5), and depend on access to key environments, such as riverine areas that have been alienated for the purpose of agricultural development.

Box 5: Pastoral coping mechanisms in Somali region, Ethiopia[82]

Coping mechanisms used by pastoralists vary and depend on the level of group wealth. Common ways of responding to drought include:

- Selling strong he-camels and lactating camels
- Reducing meals
- Trekking long distances with livestock in search of better pasture and available water supplies
- Changing the composition of livestock herds (from cattle to goats and sheep)
- Sending some younger family members to reside with relatives in urban areas
- Out-migration of the able bodied in search of labour (normally to Somalia)
- Slaughtering more animals to substitute meat for grain as last resort
- Petty trading
- Collecting and selling gum and frankincense
- Burning and exporting charcoal to Somalia
- Begging

Most irrigation development has been in areas used by pastoralists, and in a policy and legal context that does not protect the land and resource rights of pastoralist populations. Conflict has been common, as pastoralists continue to defend their rights to access and use key resource areas. Yacob Arsano explains:

> "... due to the lack of clear land tenure policy, the three Ethio-Italian irrigation projects in the Jijiga agro-pastoral area (Chinaksen, Biyo and Elbahe) have been caught up in land tenure related conflicts. The Government-sponsored Gode irrigation scheme was scornfully condemned by the Somali pastoralists well before its devastation during the Ethio-Somali war of 1977/78 ... [And,] in the Woiyto Valley of southern Ethiopia, the ethnic agro-pastoralists (the Tsemako, Albore, Hamer etc.) are at loggerheads with the Birale Agricultural Enterprise which competes for land and water resources."[81]

Irrigation schemes are typically developed along the banks of the main rivers, crossing areas inhabited by pastoralists, thus limiting access to water supplies and pasture use in the dry season. This has increased pressure on and competition to access and use of other resource areas. The expansion of agricultural production into pastoral areas has increased natural resource competition as displaced pastoral groups move in search of pasture and water for their herds, often in areas used by other pastoral groups.

Grazing systems used by pastoralists to graze livestock are characterised by seasonal movements along known migratory routes, defined kinship networks and long-standing traditional political alliances. Pastoralists' political systems are not based on defined and static territorial units but on fluid and dynamic social units, with power and influence widely distributed. Territorial attachment is an alien concept – pastoralists depend on freedom of movement and widely disperse the different types of stock for which they are responsible. Dividing stock by species, age and condition and distributing them in different spatial areas, to be cared for by kinsmen, bond partners and stock associates, minimises risk.

Increasingly, pastoralists are diversifying their livelihood systems, including cultivating small plots where and when possible. As a result, formerly common property resources are being captured, protected and their access controlled as private property by different individuals and groups. There is a lack of supportive policies to protect access to common property resources. At the same time the traditional authority that protected access to common property resources in the past has been weakened by the imposition of more modern political-administrative authorities. This has resulted in open access and exploitation of valuable common property resources in many areas.[83]

A complex system of resource rights has evolved in some pastoralist areas. For example, in the Somali region, a system of rights to access and use

resources has developed that depends on the scarcity or abundance of water, the labour expended to exploit it and the ability to add value to it (for example, by storing it for sale during times of scarcity). As Hogg explains:

> "... surface water, such as a river, natural depression or pools after rain is regarded as a gift of God and free for all to use. Water that has been contained in a dam, cistern or pond made by man or which is found in a well dug by man is regarded to varying degrees as the property of an individual or his sub-clan. Deep wells are generally the property of a sub-clan. Shallower wells are normally the property of extended families. Individuals and lineages own ponds (*hara*). Nowadays individual ownership of ponds appears to predominate. Often a group of individuals will come together to dig and maintain a pond. *Birkeda* are built and owned by well-off individuals, who sell the water in the dry season. A person will excavate a *birkeda* in his own clan territory."[84]

Participating in these complex water alliances is increasingly important to guarantee rights to access water. Contributing to water alliances, therefore, is essential to sustain livelihoods. Some suggest that water alliances are of more importance and value today than are the blood relations that formed the basis of pastoral institutions in the past.[85] Water, it would appear, may now run thicker than blood.

On an annual basis and at a national level Ethiopia has sufficient water to meet the demands of its people. However, because of its variable spatial and temporal distribution, water in Ethiopia is scarce. During 2001, Ethiopia experienced both excessive flooding, particularly in regions of the south-west where over 10 000 people were displaced, and continuing drought in the south-east, particularly the Somali region. In addition, individuals and different groups within society have varying entitlements to water and abilities to 'capture' and protect water sources from other potential users. Therefore a situation often exists where water may be abundant for one group or individual and at the same time be scarce for another.

Some have described water as a *renewable* resource.[86] However, water can also be considered a non-renewable resource in Ethiopia. The country experiences highly variable rainfall throughout the year and between years, including successive years of drought. Ethiopia relies almost totally on rainfall as the source for replenishing water supplies, but lacks the capacity to store rainfall or harness it before it flows into neighbouring countries.

It is apparent that on an annual basis water in Ethiopia is a non-renewable resource whose distribution is highly uneven. Alternating abundance and scarcity of water in Ethiopia is the outcome of unpredictable interactions between many factors that are not exclusively 'climatic' or 'ecological'. Thus, their impact is also likely to stretch beyond mere biological or ecological fluctuations.

Land and natural resource managers have developed sensitive systems and devised a number of methods to cope with resource scarcity and to mitigate its impact on livelihoods. For example, pastoralists move livestock between different key resource environments contingent on the availability of water and pasture for grazing. Access to resources depends on collective 'rights' that are consistently re-negotiated subject to social and ecological fluctuations. These negotiations are delicate, and include tried methods for resolving competing claims.

However, the effectiveness of customary resource sharing systems is rarely recognised by the current governments, nor by past governments, all of whom were keen to increase the productivity of the land. In spite of concerted government and donor effort, poverty reduction and food security do not appear achievable in the near future. There are serious structural constraints such as diminishing farm size and a lack of tenure security, as well as an absence of an overall framework to coordinate planning. Short-term needs of some sections of the population are overriding the longer-term needs and strategies of others. The outcome is likely to be continued food insecurity, increased environmental degradation, and perhaps, an increase in resource conflict.

Although the present government has expressed a strong commitment to rapid progress in the provision of safe water, particularly to the rural population, the problems of doing so are massive. They require large, coordinated and thoughtful investments that are based on the decision-making input of local communities. As it stands, the development of water supplies will in the best-case scenario merely keep up with population increase.

It is unclear what changes in patterns of rainfall distribution will occur in the Horn of Africa and specifically in Ethiopia in the near and/or distant future. It is certain, however, that the population will increase and, as agriculture intensifies, there will be an increasing demand for water. The renewed emphasis on investment in irrigation and hydroelectric schemes is promoted by growing demands. Oromiya state authorities recently declared that 26 irrigation projects would begin in 2001, opening 2 054 hectares of arable land for cultivation. At a national level, 13 dams are planned to generate power and irrigate a 590 000 hectare development project.

However, the development of water resources is constrained by a number of factors. One is a persistent organisational problem within institutions responsible for water development. Although the establishment of commissions responsible for water, agriculture and environmental development and rehabilitation at the regional levels helped to overcome organisational difficulties, many regional governments lack the capacity to develop water resources or to mediate between the different interests and parties involved. In addition, the pace of developing appropriate technologies to harness water resources, that are suited to the ecological nuances of Ethiopia, is slow. Most

water developments are ambitious and rely on technologies that do not harness local methods or ecological knowledge.

It is clear that variability in water resources will persist in spite of ongoing and planned water developments. Water management plans must account for the geographic and social complexity of water and the need for adaptable, flexible and site-specific strategies. Water must be fairly allocated between competing uses including hydropower, irrigation, industry and domestic water supply for small-hold cultivation and the watering of livestock. The rights and needs of both upstream and downstream users need to be recognised and guaranteed to prevent conflict, which is possible only through scrupulous and unbiased ground assessments. It is critical to understand the sources underlying the onset and continuation of conflict. The following case study will explore different layers of conflict in the Awash River Basin.

Case Study 1: the Awash River Basin

Background and Recent Developments

The Awash River Basin is part of the Afar Autonomous Region and is divided into five zones and 29 *weredas*. It is located in the north-east part of Ethiopia bordering Eritrea and Djibouti. The basin covers approximately 70 000 square kilometres, covering 6% of the total area of Ethiopia.[87] The Awash River's catchment area is 112 700 square kilometres.[88] The basin is divided into the Upper Valley, which receives medium rainfall and is inhabited by pastoralists and farmers, and the Middle and Lower Valleys, which receive low and erratic precipitation and are almost entirely inhabited by pastoralists, with few agro-pastoralists and peasant farmers. Mean annual rainfall ranges from 160 millimetres over the northern lowland to 1 600 millimetres at Ankober in the highlands north-east of Addis Ababa.

The area is considered to be one of the poorest, least developed and neglected regions of the country.[89] As Bryden argues:

> "... at best, the Afar National Regional State ... is poignant testimony to the emptiness of past commitment, by both governments and aid agencies, to the development of Ethiopia. At worst, the region's historical neglect and relative underdevelopment implies a legacy of imperial exploitation and exclusion from whatever progress other parts of the country have enjoyed. The vast majority ... have seen virtually no improvement in living standards for decades, if not centuries. 'Development' when it has taken place, has usually taken the form of assimilation by the central Ethiopia state and partial annexation to Ethiopia's highland economy – a process perceived by many Afar to represent economic and cultural imperialism rather than 'progress'. Development schemes in the Afar region

> have historically reflected the priorities of central governments or select commercial and political interests, while the needs and aspirations of the Afar people have been chiefly disregarded."[90]

Nicol et al further claim that:

> "... under both Haile Selassie and the Dergue, maintenance of power and authority was equated with the appropriation of resources for the centre and conversely, with denial of access to peripheral communities. In pastoral areas such as the Afar state, state capture and exploitation of land adjoining the Awash has, [as a result,] left a legacy of resentment which directly impacts on resource management in the region."[91]

Bryden describes the Afar region and Awash Valley as a fractured political landscape reflecting clan and regional differences and a lack of relation between governors and many of the inhabitants.[92] In 1997, the total population of the Afar region (all groups) was estimated to be 1.1 million. The Afar are the largest pastoral group in the valley and inhabit the entire basin from Awash station up to Djibouti's border. Traditionally, they have practised transhumant migration between dry and wet season pastures within a radius of approximately 50 kilometres.[93] However, the Somali Issa have expanded westwards towards the Awash Valley over the last 50 years, partly due to the fact that agricultural production has increased significantly along the banks of the Wabe Shebelle River, upon which the Issa depend for pasture and water supplies.[94] Expanding agricultural production has resulted in a restriction of movement for all pastoral groups, including smaller groupings of Kerreyu, Jille, Arsi, Ittu and Argoba.[95]

The current situation in the valley is the direct result of past government policies. Though the region is historically marginal compared to the rest of Ethiopia, the government attempted to develop the region in the 1950s, channelling substantial investments into the valley, and established large state farms in the valley to produce mainly cotton and sugar cane. Commercial agricultural production was introduced with little concern for those already inhabiting the area – primarily pastoralists – who were evicted from their lands. Military force was used to protect state investments in commercial agriculture. Armed conflict ensued. Many of the developments in the valley involved investment by international companies such as the Dutch HVA Sugar Cane Estates. The government of Italy supported the construction of the Koka Dam. These projects went ahead despite recognition that they would undermine pastoralist livelihoods, particularly Afar livelihood systems.[96] Table 6 summarises the larger evictions and displacements over time in the Afar Valley.

The Awash Valley Authority (AVA) was established in 1962 as an autonomous public authority with the responsibility to coordinate and administer the development of natural resources in the valley, and particularly those in the upper

and middle areas. Though the AVA was mandated to involve local communities in development initiatives, it did not do so.[97] The authorities embarked on a programme of granting land to concessionaires based on the constitutional provision that made all lands used by pastoralists state land. Under the Civil Code introduced in 1960 the right to claim land title could only exist if it could be proven that land taxes had been paid for 15 consecutive years. As the pastoralists had paid no land tax, and because their habitation of these lands was not officially recognised, the state claimed that the land was abandoned.[98]

By 1971 an area of 9 800 hectares of land was under plantation (including Metahara and Abadir).[100] As a result, the prime land near to the Awash River that was used seasonally by pastoralists during the dry season and during droughts was no longer accessible.[101] At the same time, flooding was prevented through the construction of dykes. These drastically changed the ecology of the river valley, restricting the seasonal growth of pasture that pastoralists depended on.[102] It also prevented annual fertilisation of the land through the deposition of silt.[103]

Table 6: Groups evicted from the Awash Basin area[99]

Groups evicted	The reason for eviction and displacement	Year	Compensation
Jille	The Dutch HVA Wonji and Shoa sugar cane estates. Construction of Koka Dam and creation of Galila Lake. Assignment of land for other urban and rural development projects.	1950s 1960s	None
Arsi	Nura Erra irrigation scheme	1950s–1960s	None. However, they continue to practise pastoralism in hilly Tibila area.
Kerreyu	Sugar cane development between Kessem and Awash Rivers. Awash National Park which resulted in loss of 80 000 ha of dry and wet season grazing land.	1950s 1966	None
Afar	Commercial agricultural development along river beds. Construction of Koka Dam. Awash National Park.	1950s–1960s	Resettlement. Wage labour, although this was rarely taken up.

Livestock diseases (internal parasites and others) spread and livestock health suffered owing to the agro-chemicals used in the plantations. Pastoralist conditions were worsened by the 1974 ban on firing the range that was used by pastoralists to renew pasture, control bush encroachment and eradicate pests such as ticks.[104] Their desperation increasing and their options decreasing, pastoralists sporadically invaded the plantations to graze their livestock.[105]

Some effort was made to settle the evicted pastoralists, mainly Afar, as a token compensation for alienated land. It was thought that this would also serve the purpose of bringing the pastoralists under state control. However, as Ayalew Gebre describes, "attempts to sedentarise the nomadic Afar proved to be largely unsuccessful because it did not take into account the ethos of the would-be beneficiaries and therefore failed to develop strategies of persuading the people of the usefulness of the scheme."[106]

Not all the Afar were bypassed by developments in the valley. Some participated to a certain degree and gained some economic benefits as a result, such as employment on the state farms. However, "such trends sowed the seeds of further conflict within Afar political structures as a growing Afar capitalist class undermined traditional clan elders. This was a factor in the violent conflict that followed in the Dergue period".[107]

The Awash National Park was gazetted in 1966, covering 803 square kilometres between Metahara and the Awash Station. Previously, the park area was predominately used by the Kerreyu and Afar pastoralists for dry and wet season grazing before being alienated and enclosed for the park.[108] As a result, competition between pastoralist groups, as well as with the Arsi Oromo (who had already lost a large proportion of their land due to the Nurra Era Plantation) increased as they moved in search of pasture and water supplies. In addition, access to key dry season springs was lost.[109]

In the early 1970s Issa herders from the Somali region encroached into areas inhabited by Afar pastoralists. The Afar petitioned the government to check this movement. However, the government felt that it was not able to risk damaging its fragile relationship with the Issa-dominated Djibouti government, considered an important international ally. The government requested the Afar to share the limited resources of the Awash with the Issa. The 1975 Land Reform nationalised all lands including commercial developments and grazing lands in the Awash Valley. The land reform increased conflict over access to land and other resources. Violence broke out in the area between the government, pro-government groups and armed pastoralist groups, including the Afar and Issa. The unity of different pastoralist groups, already questionable, receded further.[110]

In addition, land alienation negatively impacted the traditional communal spirit of the Afar. Individual land 'ownership' encouraged new frictions over the use and sharing of grazing resources to develop. "As grazing land became

more scarce clans stopped being accommodative to each other ... The traditional values of solidarity on the question of land use and tenure ... were [*sic*] destroyed."[111] The ruling highland elite who border and were encroaching onto traditional Afar lands in the north promoted individual ownership of land and property in Afar, as they did elsewhere. Contact between outside developers and the Afar evolved into ever more violent conflict as the Afar became increasingly marginalised from their lands and sought alternative areas to graze their herds. At the same time the highland population to the north and north-east of Afar areas was growing and looking for new lands to cultivate.[112]

In the 1980s a development project was initiated in the middle part of the valley (near Awash Town). Financed by the European Community (though other donors funded the project, including the World Bank), the Amibara project illustrates how 'development' actually exacerbated conflict in the valley. The project focused on developing large-scale commercial agricultural schemes. It displaced Afar clans, and, by disrupting dry and wet season grazing patterns, particularly in and near to the Alledighi Plain, it increased the likelihood of conflict between Afar and Issa pastoralists. The Alledighi Plain is a vast fecund area with abundant resources. However, as Desta Asfaw explains, "neither the Afar nor the Issa use it because, as if by mutual agreement, it is reserved as a battlefield. The contestants move around this contested area with their livestock heavily guarded by a military escort."[113]

By 1997, it was estimated that 52 000 hectares of dry and wet season grazing land was lost. Of this 23 000 hectares (44%) had been lost owing to the direct encroachment onto pastoralist lands through the development of irrigation schemes, many of which were located in the higher potential grazing areas.[114] Environmental problems, such as salinisation, worsened. The widespread loss of grazing areas used by pastoralists stressed natural resources that were still accessible, particularly during periods of drought. During drought, it was common for the Afar to slaughter calves to save the mother and to trek long distances to collect fodder for milking cows. The most desperate response of Afar stricken by drought was to allow their herds to invade the cotton fields of the irrigation schemes.

Today, at least 80% of the indigenous population in the Afar River Basin rely on subsistence production systems, predominately transhumant animal husbandry. Few Afar have settled along the banks of the Awash River or have settled in towns along major transport routes.[115] The basin lacks most services, including hospitals and schools, and there is a low level of education. Persistent drought remains a problem in the basin with several zones experiencing increasing scarcity of water and animal fodder.

In addition, the recent conflict between Ethiopia and Eritrea has displaced some 30 000 Afar close to the disputed border.[116] The presence of large contingents of armed forces in the area resulted in the further depletion of local resources and the commandeering of equipment meant to benefit pastoralist

production. For example, a new water-drilling machine provided by the government for the Afar was forcibly taken by the local army to drill watering points near to the Ethiopian border. During this time the machine was broken and no attempts were made to mend or replace it.[117]

In many areas of the basin far from the river, the provision of water remains a great problem. Access to clean water is especially low. During drought, water must be imported from outside at considerable expense. For example in Buxe, in 1996, water was being sold at a cost of Ethiopian Birr 800 (approximately US$ 120) per tanker.[118]

The main water supplies are hand-dug wells, deep/shallow drilled wells, springs, ponds and rivers. In rural areas, people may travel 15 to 20 kilometres to collect water for human and livestock consumption. Before 1993, along the Assab-Bati road and in the Tendaho Farm Development, 751 shallow and deep wells were drilled. Of these wells, 34 were unproductive and salty, and thus were not used, six wells did not have pumps installed, and 35 of the remaining ones had different pumps installed in them. When the Tendaho Farm stopped functioning and the military camps in the area were removed, 29 wells fell into disrepair. In general, by 1993, most of the water supply systems that existed prior to 1985 were not functioning due to lack of maintenance. After the formation of the regional administration, the water development bureau, with assistance from neighbouring regional administrations, ESRDF (Ethiopian Social Rehabilitation and Development Fund), non-governmental organisations, UN agencies, and the European Economic Commission built and rehabilitated 125 water systems (see Table 7). Today, the water supply coverage for the entire region is only 16.45%, and only 14.33% in outlying rural areas.[119]

Table 7: Water supply systems in the Afar region[120]

Zones	Number of towns	Rural villages	Sources of water supply				
			Deep wells	Hand-dug wells	Rivers	Springs	Total
Zone 1	5	25	37	18	–	–	55
Zone 2	1	9	2	5	–	3	10
Zone 3	6	26	15	20	2	3	40
Zone 4	1	5	6	2	–	–	8
Zone 5	1	10	5	7	–	–	12
Total	**14**	**75**	**65**	**52**	**2**	**6**	**125**

Table 8: Existing and potential large scale irrigation areas in Awash

Location	Existing (ha)	New or expansion area (ha)	Total ha
Upper Valley	23 300	10 600	33 900
Middle Valley	19 900	35 100	55 000
Lower Valley	25 600	36 900	62 500
Total	**68 800**	**82 600**	**151 400**

Conflict is ongoing in the Awash River Basin, much of which is inter-ethnic and inter-clan in nature. Conflict and changes to patterns of resource use have led to widespread social impacts, including protectionism, stronger clan affiliation, ill health and mortality, and increasing illiteracy.[121]

As described above, the capture and closure of key resource areas used by pastoralists is a critical parameter that defines conflict in the basin today. Commercial interests are favoured over the interests and development needs of local communities. In addition, growing numbers of highland people have moved into lowland towns to farm and engage in trade.[122] Some pastoralists, including Afar, rent land to the cultivators to generate income and to purchase food and other basic commodities. Payment for the use of the land tends to be in the form of 20–30% of the value of the crop produced.[124]

Changes to land use had many unwanted impacts. Pastoral migrations were widely disrupted, forcing pastoralists to seek alternative ways of averting risk and sustaining herds. Conflict between neighbouring groups has intensified and the pressure on remaining resources has increased. Development of the Awash River Basin has continued unabated in the meantime. The Awash River Basin remains the most intensively developed basin in Ethiopia, although some schemes have fallen into disrepair. The total irrigated area is estimated to be 68 800 hectares (see Table 8), accounting for nearly three-quarters of the total existing irrigation schemes in the country, with another 82 600 hectares planned for expansion.[125]

Since the change of government in 1991, and the introduction of neo-liberal economic policies, the state has embarked on the sale of some assets including many irrigation schemes. In addition, the government has supported the return of land within irrigation schemes to select clans. However, redistribution of land has fuelled greater conflict among the Afar.

A recent survey revealed that resources are the major source of conflict between Afar and other groups in the Awash River Basin, while territory was another important source of conflict.[126] Consciousness of clan 'territory' is more intense nearer to the Awash River, whereas exclusive rights to land are

less important further from the river. The Alledeghi Plain, for example, is considered open grazing land for all Afar.[127] However, since traditional rules to restrict resource use have broken down, the Alledeghi Plain is being heavily overgrazed.[128]

Meanwhile, conflict continues between the Issa and Afar in Amibara, and is expanding northward along the Djibouti road above Gewane town. The Issa are now dominant in many of the small trading towns along the road. They have formed alliances with contraband traders from Djibouti who supply illegally imported industrial goods from Dubai and other areas.[129]. The Issa also trade in cattle. Highland peoples from the north are also involved in trade in towns such as Metahara.[130] The Afar do not engage in trade because they lack the skills and knowledge to effectively participate in the market, their population is widespread and diffuse, and because of some cultural prohibitions. The Afar control no trading routes.[131]

The growing predominance of the Issa in parts of the basin has caused fear among the Afar that trade and mercantilism are a precursor to the Issa staking greater claims to own adjacent lands. This has caused a number of clashes between the Afar local government and the Issa, who in many cases do not recognise the Afar's jurisdiction. The tension has resulted in insecurity and low intensity conflict along the Addis-Djibouti railway and Addis-Asseb road, including the deaths of several lorry drivers.[132] This has resulted in the closure of the road on several occasions, bringing the conflict national attention.

Conflict also continues in the southern part of the basin near to Metahara. The national park remains strongly contentious, as does the large sugar cane plantation in the area. The core area of the national park has been severely reduced as grazing and farming encircle the park and go beyond the original park boundaries. The area surrounding the park is severely degraded. Frequent clashes between the Afar and the Kerreyu have occurred inside the park itself. Both groups avoid areas near to the park and the park itself as a result, although they have excellent grazing areas that were used historically as drought reserves.

During the drought in 1996 and 1997, herders lost many livestock in the nearby Kerreyu. Highly nutritive seasonal grasses near to the park were unused owing to the pervasive tension and ongoing conflict. In fact, it is suggested that the imperial government of Haile Selassie actually constructed the Dinkuku Pond in the area of the national park to discourage the Kerreyu and the Afar from grazing in and near to the park. The logic underlying Selassie's strategy was that the two hostile groups would keep retreating backwards away from the pond and pastures, to avoid confrontation.[133]

Authority for managing the national park remains with the federal government through the Ethiopian Wildlife Conservation Organisation (EWCO), although most other national parks are under the jurisdiction of regional governments. In the case of the Awash National Park, it was felt that the current Afar government did not have the capacity to address the problems in the

park, and indeed the capacity of the EWCO is questioned. At the moment, for example, in the core area of the park, any cattle found grazing are removed and impounded until fines are paid for their release.

During a recent dry period the Kerreyu tried to graze large numbers of cattle within the park boundaries and, in retaliation, it was rumoured that the government authorities killed some cattle. As a result, the Kerreyu forcibly moved further into the park and set fire to some areas.[134] Attempts to address these conflicts continue with the restructuring of a CARE-funded integrated conservation and development project in the park environs. Wildlife authorities are being trained in negotiation instead of enforcement. In addition, CARE is establishing water supply points outside the park boundaries in an attempt to provide alternative supplies for pastoralists.[135]

The sugar plantation employs large numbers of daily labourers from regions south of Afar, including from Borana. The four groups of pastoralists present in the area (the Afar, Agorba, Kerreyu and Issa) compete for access to grazing lands and water as the local populations grow and natural resources are placed under increasing pressure. Invasive bush plants, notably *Prosopis unifera,* are encroaching on the flood plains and agricultural land. Grazing that would otherwise have prevented the spread of invasive weeds was prevented[136]

Most large trees were removed to produce charcoal (previously controlled by traditional authorities) and the land is rapidly degrading. Fighting has also broken out between pastoral groups, particularly between the Kerreyu, the Issa and the Afar, and also with the government, who are represented mainly by highland peoples.[137] The situation is aggravated by Issa movements into the area from the north-east, and from as far as Djibouti.[138] All conflicts increase in likelihood and severity during times of drought as the struggle to gain access to resources intensifies.

The lack of official concern to resolve these conflicts, for example, by stemming the flow of non-native groups such as the Issa into the region, raises pertinent concerns linked to national politics and identities. In the case of the Issa, this is particularly clear. Because Ethiopia is now dependent on Djibouti for access to the Red Sea, the government is reluctant to damage relations with Djibouti by preventing the movement of Issa (the politically dominant ethnic group in Djibouti) into the Afar region. As Nicol et al suggest, "Ethiopia may have to subjugate the claims of Afar [and other] pastoralists to their interests in increased control of water and land resources, in order to maintain beneficial relations with Djibouti."[139]

Conflict Prevention and Resolution

At a local level, however, there are more determined attempts to resolve and prevent further conflict, or at least to minimise the more violent aspects of conflict.

For example, among pastoralist groups there are traditional institutions to manage access to and distribution of resources. Traditional institutions may assume a stronger role in preventing, mitigating and resolving conflict.

Within Afar communities, decision-making and conflict resolution is largely the responsibility of elders and religious leaders, exercised through institutions such as *xeraa, mablo* assemblies and sanction-executing structures called *finna*. Traditionally, a communal tenure system is the basis of land 'ownership' in areas inhabited by Afar. Usufruct or access rights to land are sanctioned under communal tenure systems, under which land cannot be purchased or sold.[140] Through birth, all Afar have a right to access land. Tradition and custom guarantee these rights are passed to offspring. The Afar are conscious of territorial boundaries (though these are considered flexible) since every tribe and clan has its own clearly demarcated territory that is guarded by scouting parties called *giba*. Grazing land is divided among the clans and sub-clans within a tribe in accordance with customary law. One clan is not allowed to use the resources of the other without their knowledge and prior consent. In times of resource scarcity or stress, clan resources are often shared. Resource sharing is the basis of strong traditions of reciprocity among Afar.

The Afar are led by the Aussa Sultanate. The various clan heads (*kebo-abba*), elders' council (*daar-idola*), the sanction-executing body of the clan (*finna*) and the various assemblies (*mablo*) serve as repositories of the Afar culture, customary administration and customary rules and regulations (*afar-madda*). The clan heads (*balabats*) and clan elders not only administer the clan territory but they also allocate and lease land under their control (as nominees of the state) for private and communal uses. This includes the utilisation and management of natural resources, supervising redistribution of resources and livestock animals, and the adjudication of conflicts.

Traditional institutions, as Nicol et al describe, "are generally very effective in the mediation function in intra-group conflicts. They also take on the role of appealing to the government in the event of large-scale conflicts between their respective groups and negotiate on behalf of their respective parties at peace conferences often organised by the government."[141]

A series of 'peace conferences' were recently held in the Afar region. They were organised by the government and led by the interior minister. Peace conferences involved the establishment of joint peace committees at various levels. These included the involvement of the DPPC (Disasters Prevention and Preparedness Commission). It is suggested that these meetings are having some success in reducing military engagement and inter-group killing, reducing cattle theft and establishing a degree of tolerance between belligerent groups. They are assisted, in some cases, by traditional peace-building institutions.[142]

It is also argued, however, that much more could be done than is currently being achieved, and in fact, the meetings have little substance or capacity

to address the root causes of conflict.[143] For example, Issa encroachment onto Afar lands is the root source of conflict between the Issa and the Afar. Issa argue that they have nowhere else to go and are supported by the government, who are unwilling to stem their movement into the Afar region. Negotiating competing Issa-Afar claims to land in the Awash River Basin will require delicate diplomatic negotiations between the governments of Ethiopia and Djibouti. In this case, local level negotiations are less capable of redressing the root source of conflict.

Women fulfil an important role in conflict prevention and resolution. Women frequently act as 'go-betweens' for competing clans. Between warring clans in Afar, women act as messengers and mediators for the elders and male members of the clans. They will meet with other women in recognised 'no-man' areas wearing specific sheepskin clothes showing that they come in peace. They will then return to their male counterparts carrying messages, demands and prospects for resolution. Similar arrangements exist within the Kerreyu. It is suggested here that women are helpful for building peace because there they are considered to be safe, based on cultural ideas of femininity.[144]

In general, there less stigma is associated with women making peace and resolving conflict. In the Afar region, women from competing Afar and Boran groups graze cattle in certain 'no-go' areas between the two groups that are considered too risky for men. They will remain under cover of the bush within their recognised boundaries. If women go too close to the enemy lines, however, they may be abducted by the men of the different group and taken as booty, though it is unlikely that they will be physically harmed.[145]

Intermarriage between clans and even ethnic groups is also a longer-term means of preventing and resolving conflict.[146] This usually involves an exchange of a number of women from one clan or group with another. It is hoped that stronger blood ties between different groups resulting from intermarriage will help to prevent further conflict. At a recent 'Peace Conference' held in Awash in 2000, it was suggested that Afar and Issa exchange 50 women from each group for marriage as a way of resolving the conflict in the long term.[147]

The Changing Nature of the Conflict

Conflict in the Awash River Basin is multi-layered and involves many competing groups. The changing dynamics of conflict in the basin entail competition for scarce natural resources. However, as was evident in the last half a century, it is often the comparatively abundant nature of natural resources in specific micro-environments, and the uneven distribution of some resources, that is the more critical 'ecological' source of conflict. Powerful groups, including the government, commercial corporations, town-based entrepreneurs, and rich

stockowners invested in commercial farming and ranching ventures, are attempting to 'capture' pockets of valuable natural resources from traditional users, including pastoralists, who have little or no means of protecting their land and resource rights beyond armed resistance.

There is little question that conflict in the Awash River Basin is about access to and control of land and natural resources, which trigger an assortment of other factors significant to a comprehensive explanation of conflict in the basin. Conflict increases during periods of ecological stress, such as droughts, when key natural resources necessary to sustain both subsistence and commercial production become scarce. Some suggest that if all local conflicts (particularly in pastoral areas) were geographically mapped, they would overlap water supplies.[148] Conflict involving competition to access and control natural resources gradually are 'ethnicised', as competing groups tend to protect claims for their own clans or lineages. As Davies suggests, "in times of scarcity the rules change."[149]

Although land and natural resources can be seen as the 'triggering factor' of conflict, the historical, social, economic and political contexts in which natural resource competition occurs is absolutely crucial to a full understanding of the wider conflict. It is within this context that the real sources of conflict are identifiable, such as inappropriate land policies, political motives, and prioritising commercial or conservation interests above the interests and needs of local communities. The sources of conflict have been aggravated in recent years as social and political formations evolve and the role traditional authorities in preventing and managing conflict declines. As Dejene Aredo and Abdurahman Ame confirm, "the increased conflict over scarce pastoral resources is the result of the deterioration in their livelihood triggered by cyclical drought and escalated by ineffective social and political organisation."[150]

Additionally, the nature of land and natural resource competition is changing from access and use, such as to pastures and water points, to permanent claims to own land and exclusive control of critical natural resources. In pastoral areas, as a result of increasing pressure to protect resource access, combined with the influence of farmers, government bodies and the developmental activities of non-governmental organisations, there is a trend toward private ownership of land and away from sharing common property, land and natural resources.

The mobility of pastoralists has declined, sedenterisation of formerly mobile groups is increasing and additional fences and barriers are further obstructing customary patterns of resource use in the dry lands of the Awash River Basin. Today, access to certain resources, such as water, involves money, assuming that money is available to do so, which it frequently is not in traditional pastoral livestock economies. At the same time, attitudes have shifted: individual ownership is favoured over reciprocity

and support of kin.[151] Many pastoralists themselves are more individualistic in their outlook.[152]

This can only serve to undermine the pastoral system which is founded on reciprocal exchanges, mutual dependence, social networks of support, and resource sharing. Ongoing social changes in pastoralist communities signal a radical shift in inter and intra-ethnic group relationships. This involves moves away from resource sharing based on kinship and descent, toward radically new types of relationships based on territoriality or locality, external assistance (famine relief), market relations and the 'modern' institutions of the nation-state.

At the same time, claims to own land have raised the level at which prevention and management is required, from micro or local scales to macro or national and regional scales. Pastoralists can rely on little legal or institutional support to defend their land and resource rights. Arguably, Ethiopia's new constitution and environmental policy do offer some protection from, for example, being evicted from inhabited land. However, the need for bylaws that provide legal and written backing is vital if the land and resource rights of pastoralists are to be protected from more powerful interests with access to information and legal and institutional expertise. This requires urgent attention at the regional and national levels.

Indeed, a supportive land policy is vital for the continued viability of pastoralist production systems in Ethiopia. The absence of a land policy in the past was a crucial variable underlying conflict in pastoral areas. Decisions continue to be made at the federal level, which has little understanding or concern for local issues in peripheral pastoralist zones. As Nicol et al contend: "The government plans on the basis of laws and proclamations which are devised centrally, for instance over land tenure and sovereignty over resources, at a local level *de facto* resource sovereignty is exercised by those with a local monopoly on the use of force."[153] The lack of a clear land policy deepens the feeling of insecurity in rural pastoralist areas and prevents long-term planning as well as effective resolution and prevention of conflict.

As conflicts involving land and natural resources have intensified in many areas, such as in the Afar region, they become more like blood feuds, as reprisals are made for lost group members. Today small arms and light weapons are readily available in the Awash Basin, as they are throughout the Horn of Africa. The accessibility of small arms and light weapons, including automatic machine guns and grenades, has dramatically intensified the level and deadliness of conflicts, effectively revolutionising their nature. The purchase of guns (mainly kalashnikovs) is a primary expenditure of Afar households.

Competition over the distribution of munitions is common. Not only are arms and weapons used for self-defence, but they have also become powerful symbols of heritage. Recent attempts were made by the government to disarm

the Afar pastoralists through a decree that all illegal weapons should be surrendered to the administration.[154] Limited demobilisation of the Afar population has increased their vulnerability to other armed groups, not least the Somali Issa, who, it is suggested, may well receive arms illicitly from Somalia.[155] Somalia, it is explained, is a state which remains in pursuit of an expansionist policy that in the past has attempted to attain parts of the Awash Valley to form a Greater Somali nation.

Conflict, therefore, is set to continue for the near future as pressure to control land and natural resources increases. In particular, commercial interests will grow as the exploitation of land and resources is encouraged to generate much-needed government revenue and local income. Many resources that are currently only being used for small-scale local and national use have the potential to be exported regionally and internationally. Indeed, it is suggested that there are large, actual or potential mineral resources, such as gold in the Adola of Borana, natural gas in the Ogaden, salt mines in the Afar, or soda ash in the Rift Valley.[156] Gold, for example, has already been the source of local conflict in the south of the country around Omo. The Surma peoples in the lowlands regularly ambush highland peoples who have come to the area to pan, collect and return gold to the cities for sale. It seems likely that these resources, including water, will become the source of greater competition and conflict as Ethiopia develops infrastructure to utilise and exploit resources, supported by investments from overseas business interests.

Regionalisation

The ongoing regionalisation process has benefited certain ethnic groups through recognition and support for dominant parties in a certain area. For example, the Afar and Somali dominate their so-named federal states. However, it may also affect the allocation of resources at the expense of certain ethnic or religious groups, and thereby lead to the politicisation and mobilisation of identity. Indeed, because regionalisation has occurred along ethnic lines, it is likely that certain groups who currently are not fairly represented or have little power to influence critical decision-making processes will remain marginalised and vulnerable to exploitation by more politically powerful groups.

Within the Afar regional government, groups such as the Kerreyu and Argoba are barely represented. Changes in distribution of land with the recently defined regions between Somali and Oromiya regions have escalated ethnic conflict in the Borana area (specifically between the Somali clans in Liben and Arero wards in the Borana lowlands). As Alem Hadera Abay imparts: "The ethnic-based regionalisation and mapping of administrative regions has created or added more tension to what is a conflict-prone part of Ethiopia."[157]

It is suggested that in regions dominated by ethnic groups such as the Afar and the Somali, pastoralists now have a high degree of power independent of the central state, including decision-making pertaining to the management of land and natural resources. Local and regional participation in decision-making should be encouraged and the accountability of regional and central governments improved. As federal entities, the regional states are empowered to write their own constitution, elect a state legislature, set up state administrative machinery and devise their own development plans. A major constraint to the development of the Afar region in the past has been chronic instability and the absence of effective administration.

As Bryden points out:

> "After several years of gross mismanagement under previous regimes, the new regional government gives cause for optimism that the next few years will see real progress. Already, considerable emphasis is being placed on the 'Afarisation' of social services – the training and employment of Afar personnel in posts previously held by members of other social ethnic groups."[158]

However, at the same time, it is suggested that "in essence, this is an act of superimposing modern state machinery onto a transitional pastoral socio-political structure".[159] It is yet to be seen what effect regionalisation will have on emergent social and political formations in the Awash Basin. Moreover, "central authorities, whose commitment to decentralisation is needed for reform, may see diffusion as a threat to their power. In these senses, structuring local government requires an understanding of the structure of incentives facing political leaders at both central and local government levels."[160]

At this time, many regional governments are weak, inexperienced and lack the capacity and human and financial resources to carry out their responsibilities. Though certainly, there are now opportunities to redress the uneven nature of development within some regions, in many others limited human and financial capacities hinder any forward progress. There is little capacity or knowledge to plan and coordinate conflict resolution effectively, for example. In addition, there is some inequity in support from the federal government, with certain regions receiving considerably greater support and resources (including for capacity building) than others.

If this serves to increase regional disparities in effective development planning, finding effective solutions to the pastoral-irrigation problem, for instance, will be further postponed. In addition, the spatial variability of natural resources between the regions is great: some regions are substantially richer in natural resources than are others. However, transfer of resources between regions to balance uneven distribution of natural resources is complicated by poor transportation and communications infrastructure. This also

limits the ability to add value to resources, with the exception of very valuable resources such as gold and ivory.

Several regional boundaries are yet to be firmly decided and demarcated. This includes the Somali region boundaries bordering both Afar and Borana.[161] A referendum is proposed to decide where the boundaries will be demarcated. It is an extremely contentious issue and whatever the decision is, it is likely that conflict will continue. This is particularly the case for the Somali-Afar border, over which violent conflict continues, as described earlier in this chapter. The government may decide to take the boundary along the Awash-Asseb road, dividing the towns along the route between the different groups.

However, the Afar will never accept this, as their original lands stretched much further to the east. It remains to be seen whether the government will prioritise its relationship with the government in neighbouring Djibouti and its process for a united Ethiopian state (that includes the Somali region) over the interests of the Afar. In fact, some suggest that keeping the current boundary with 'dotted lines' rather then 'solid lines' as boundaries, so allowing some room for flexibility and manoeuvring between the regions is a better alternative to a hard boundary. Up to now, a more flexible boundary has successfully averted more intense conflict that may arise when firm demarcation of the boundary is decided.[162]

It is encouraging that pastoralists, for example, now have greater opportunities to participate in national political and economic life. Certainly many will benefit from recognition (though partial) of their cultural rights and the development opportunities made possible by development funds given by the federal government to regional states. However, a large number of risks remain, including for renewed conflict. For instance, the use of underground water and rivers for irrigation is likely to worsen the scarcity of available pasture and surface water for grazing livestock.

Continuing sedentarisation and urbanisation are likely to further disrupt customary grazing patterns, while increasing the overall demand for livestock. Uneven distribution of development benefits between different groups in regional states will fuel additional conflicts. The new bureaucracy accompanying regionalisation may affect traditional authority and administration, including its composition and how effectively it maintains social control. One observer notes that "conflict is to be anticipated especially in leadership and law".[163] Finally, cross-border initiatives may become increasingly difficult as regional identities and protectionism of regional interests are pursued more fervently.

Continued Emphasis on Large-scale Production and Unsuitable Intervention

Large-scale irrigation has been the central focus of formal development in the pastoralist inhabited Awash River Basin since the late 1950s. Since the 1970s

some programmes have officially sought to more equitably share the benefits from irrigation with neighbouring pastoralists by increasing their participation in some schemes. However, in most cases participation is minimal, and not what is envisaged by enthusiasts of so called 'participatory' development. In fact, as it was shown, water development has often *increased* the vulnerability of pastoralists to the very risks that they were intended to minimise, such as drought. Furthermore, as Helland contests, "water projects, have, in many cases, unintentionally rearranged social relationships as well, by disregarding local views on appropriate distribution of rights and management of resources, to the extent of threatening mutual assistance networks and other socially constructed means of averting risk in this high-risk environment."[164]

There are some shifts in donor-funded projects to become more aware of the possible unwanted impacts of development projects they finance. However, for many in the Awash Basin, it is too little, too late, as the effects of past negligence continue to be felt. Nicol et al suggest that, "... EU engagement in the Awash Valley has actually exacerbated the risks of violent conflict," rather than reduced them[165]. In addition, within some donor agencies, there remains an emphasis on large-scale infrastructural projects that have little benefit for local communities, especially pastoralists who are still viewed by some donor representatives as reckless and unsustainable in their ways of managing land and natural resources.[166]

Many policy makers still believe that sedenterisation and ranching is the best way to improve pastoralist livelihoods. Resettlement and the expansion of private agricultural production on pastoralist rangelands are being encouraged. Resettlement and the expansion of agricultural production, however, will eventually make it impossible for pastoralists to sustain their subsistence production strategies and customary methods of resource use. For example, in the Afar region, the development strategy of the regional water bureau appears to be making the same mistakes that were made under earlier development projects. In 1995, a policy statement by the chief of the regional water bureau, cited in the *Ethiopian Herald* newspaper, asserted that the regional water development strategy was aimed at:

> "... helping nomadic pastoralists change their mode of life and lead a sedentary existence. Such thinking would seem to contradict the growing body of evidence that 'sedenterisation' programmes have been almost universally unsuccessful and frequently damaging, partly because local ecosystems cannot tolerate non-pastoral methods of land- and water-use over the long term and partly because they require a traumatic socio-cultural transformation of the target communities".[167]

The emphasis of development in pastoralist areas remains to exploit its resources for national economic advancement, rather than to meet local needs. In fact, Ethiopia is currently in the process of surveying some 15 valleys for

potential resource development, most of which are in arid or semi-arid areas inhabited by pastoralists.

Today, the Awash Basin Water Resources Administration Agency coordinates, administers, allocates and regulates the utilisation of the surface water resources of the Awash Basin. Like its predecessors, the Awash Basin Board (set up in 1998) and the AVA, it will have to address the prospect of growing privatisation, environmental degradation and conflict. Indeed, though it has been proposed that most of the cotton state farms be privatised, the pace of redistribution is very slow. In the meantime, public irrigation schemes are facing formidable problems including a lack of cash flow, seasonal flooding and inadequate management.

Blanket-style policies continue to be formulated at a federal level and are uninformed of the complexities and nuances of different local areas. Many policies, therefore, are inflexible to local needs. As Alem Hadera Abay argues: "Policies in Ethiopia tend to be highly land oriented and lack specificity and sensitivity to the pastoral way of life."[168] In the future, place-specific strategies are needed within an overall flexible policy framework. These strategies must be framed on the variability and peculiarity of local ecology, including land and natural resources. As Gezachew Abegaz explains, the "characterization of the land resources in terms of the major patterns of change in resources management and their hypothesized causes and effects are the key elements in designing place-specific strategy and policy frameworks."[169]

At the same time, development through aid interventions needs to be more conscious of the *real* impact of development projects and whether these optimise use of scarce ecological and human resources. As Ayelew Gebre Mariam suggests:

> "Water points development should be integrated with natural resource management. Extra water supplies in the rangelands should not be developed without regard to the grazing capacity of the area. The resource imbalance may disturb former use patterns and may accelerate resource depletion. Uneven development of water resources should be balanced, and the drilling of boreholes in deep well areas should be avoided. Water development is not about replacing the existing indigenous water sources."[170]

How to ensure adequate water supplies, yet prevent the decline of pastures on which livestock production depends, is a dilemma that policy makers and practitioners alike now face.

There are more recent attempts to move away from large-scale agricultural production schemes to more intermediate and targeted interventions. In 1994, the European Union provided ECU 1.9 million for the Afar Pastoral Development Project (APDP), which was implemented by the newly appointed regional government. The project was modestly successful, directly

involving many local communities in implementation. However, a follow-up project was not approved by the central government, forcing the European Union to withdraw.

A smaller project is currently being initiated by FARM Africa (a British NGO) within zones 1 and 5 of Afar regional state, continuing with the same approach as the APDP and recruiting former APDP staff.[171] The project focuses on suitable uses of land along the Awash River to support pastoralist food and livestock needs. The longer-term goals are to be decided through the development of a Community Action Plan. However, the project may cause conflict.[172] For example, the neighbouring Issa are unhappy that the Afar are the focus of the project and are therefore refusing to cooperate with FARM Africa. Conflict prevention and resolution is recognised as an important component of the project and there are moves to establish innovative and acceptable means to resolve conflicts between all parties. This is part of a wider project involving FARM Africa and SOS Sahel and that is seeking to establish useful conflict prevention and resolution initiatives at the local level.

Conflict in the Awash River Basin cannot be sustained. In many areas, the desperate state of many local communities is testimony to the need to formulate new and innovative responses to chronic resource scarcity and pervasive insecure rights to land and natural resources for the rural poor. Difficult, informed and fair decisions regarding land and development need to be made at the federal and regional levels. Bryden explains:

> "The marginal territories of the Horn of Africa tend to be places of chronic conflict and instability, and although their populations suffer most from its consequences, the states in which conflict occurs are also affected. Scarce resources that could be better invested elsewhere are consumed by violence and the latent potential of the land and its people goes untapped."[173]

Despite this, there is little concerted effort to explore and instigate more thoughtful and appropriate conflict prevention and resolution measures to address ongoing conflicts in Ethiopia. Partly this stems from the low priority of the Awash Basin nationally. Although conflict in the Awash Basin has severe impacts in the basin and beyond, the conflict is rarely translated to higher level 'water wars'. As a result, there are few official attempts to develop effective methods to resolve conflict in the basin. Instead, the attention of national policy makers and government officials is on regional issues, such as conflict over the allocation of Nile waters. Nevertheless, as Nicol et al suggest, "it is not impossible to envisage larger-scale 'water wars', although the potentially huge (and futile) cost far outweighs any significant gain from 'capturing' water in this way."[174] This requires recognition by all parties involved, including the government, when weighing the costs and benefits of further expansion of commercial agricultural schemes in arid and semi-arid lands.

At the same time "the support of traditional conflict resolution institutions through recognition of their importance to conflict prevention and resolution is essential.[175] Though Article 78 (5) of the constitution gives power to the House of People's Representatives and state councils to establish or give official recognition to religious and customary courts to adjudicate disputes, they are not given legal backing.[176] Indigenous mechanisms need to be better understood and reviewed in terms of their functionality with particular reference to their relevance and application at different levels of conflict.[177]

Government and regional level policies to prevent and resolve conflict have, so far, had minimal impact.[178] There needs to be increased 'cross-fertilisation' of method and concept between modern and traditional systems. Indeed, according to the respondents at a conflict resolution workshop in Borana, for example, it was stressed that, "in order to be able to resolve the [current] conflict over land it is ... necessary and essential to restore the authority of the elders in the zone and encourage and help them to dispense their customary laws."[179]

Advantages of traditional methods for conflict prevention include that they have the ability to respond to crises quickly, and they can reduce the resources used for court cases, thereby saving scarce public funds. In addition they are seen as more accessible, affordable and fair.[180] However, they are poorly understood, not least due to the fact that in some areas traditional methods are hidden from outside observers.[181]

Outside mediators can help to resolve conflicts. However, they must have a good understanding of the history and changing and complicated dynamics of the conflict, as well as be respected and trusted by all stakeholders. This is rarely easy. For example, those considered of a respected age among the Afar and able to act as elders in conflict resolution are older than those of the Issa, possibly because the Afar tend to live longer than the Issa.[182] As such, the Afar have little respect for Issa elders, who it is said, can be easily intimidated by their Afar counterparts.

However, the relationship between the Afar and other pastoral groups is often more amiable and demonstrates that resource competitions do not always result in conflict. For example, in the western part of Afar region, it is observed that "... the Afar and Oromo enjoy a relatively peaceful relationship. The Oromo not only teach the Afar how to plough but also sometimes work for them. In addition the Oromo get Afar cattle in exchange for grain".[183] In many cases, peaceful competition between different natural resource users depends on risky but tested systems of agreement and negotiation. Local, customary processes of negotiation and consensus building should be given greater institutional support and be used as the basis on which to enlarge peace building.

Conflict resolution is now a key undertaking of many intervention agencies. What is needed, suggests Irwin, is to untangle the complex network of issues underlying resource conflict and competition.[184] An initial strategy

may include analysis of existing conflict, including the impact of recent ecological and social change, and linkages between these and their causes and impacts, in order to identify where intervention is appropriate and effective. There is also a need to understand and identify any gaps in the methods used to prevent and resolve conflict. At the same time, it is essential to explore pathways in politics and policy to redress conflict. Ascertaining the relationship between resource users and resource uses, the types of conflict that exist and their sources and alliances may help to identify areas for intervention in conflict prevention and resolution.

In addition, development agencies require new roles. A shift in bias from technical development to social development is needed, although the two disciplines remain closely interlinked. "Until resource conflicts are resolved or at least systems are in place to enable conflict resolution, the livelihoods, resource management systems and capacities of pastoralists will continue to be disrupted and undermined."[185]

The international community has begun to recognise the need for more sustainable solutions to livelihood challenges, as well as the need to integrate conflict prevention and resolution into the overall design and implementation of development projects. For example, the UNDP office in Ethiopia is strengthening upstream policy interventions. The primary objective of Project ETH/97/005 'Support to Water Resources Development and Utilisation' programme is to assist the government to formulate and implement water policy, water codes, and strategies at the federal level.

Some additional components of the water programme include building federal and regional institutional capacity for the design and implementation of small-scale irrigation and water resources development projects, including water supply and sanitation, and strengthening the dissemination of meteorological information and hydrological services for Ethiopia. Strengthening national capacities to cope with crisis, including shortage of rainfall, cyclical drought and famine through the design and implementation of early warning systems, pre-disaster planning and prevention strategies, may help to alleviate poverty and promote food security, key policy objectives of the government, UN agencies and international financial institutions. To support these programme activities UNDP has allocated US$ 7.5 million.[186]

The European Union recognises that the human and material costs of violent conflict undermine efforts to foster sustainable development and the need to support programmes to address the root causes of violent conflict. In addition, a shift can been seen in European Union peace-building and conflict prevention policies, which now focus upon democratisation, human rights and other projects that aim to reduce inequality. However, their policies have not been backed by the necessary shifts in resources to programme-level support and, in fact, there is a tendency to continue and often increase support to large-scale infrastructure projects. However, large-scale infrastructure projects rarely

consider the specific needs of poor communities vulnerable to conflict, nor do they support peace building in conflict areas.

In addition, there remains little recognition of the linkages between issues of land and resource rights and conflict in most areas. 'Environmental' issues are rarely accounted for in conflict mitigation strategies in Ethiopia.[187] Within the United Nations, environmental or ecological issues as sources of conflict are not considered a priority.[188] One small encouragement is the inclusion of pastoralism and conflict issues in a recent World Bank Regional Consultation on food security in the Horn of Africa, based on the cross-cutting theme of "Environment, natural resources and social issues".

Conflict prevention and resolution mechanisms need to be coordinated with environmental warning and response systems. There has been a government early warning system in Ethiopia since 1976. Since 1993 there is a distinct effort to decentralise decision making and to add other responses other than just food aid. This official system has had a fairly reliable track record of timely and accurate warnings of forthcoming emergencies. The official government system is supplemented by a number of parallel systems including USAID FEWS, WFP needs assessment, FAO harvest assessment, and formal and informal monitoring and networking carried out by non-governmental organisations. The record of *responding* to early warning information is less impressive. For example, the *Dergue* government in 1984 ignored information suggesting impending famine until it was too late, and subsequently there were problems with timely donor response.[189]

The situation found in Awash is extremely complex. Establishing the true sources of the conflict in the basin is difficult and remains contested. It is clear, however, that though conflict in the basin appears to centre on land and resources, there are numerous other factors that are important in understanding the conflict. These are deeply embedded in history, politics and socio-economics, and which may have little or no direct relationship with ecological or environmental factors. For example, though it is apparent that environmental degradation is occurring in many parts of the basin as pressures on remaining and relatively accessible resources increase, one factor alone cannot be held responsible for this. As described earlier, environmental 'degradation' is influenced by a range of actions rooted in geopolitics and the inequitable distribution of resources at national, regional, local and household levels. As such, simple environment-conflict linkages are of little use in understanding and resolving conflict in the basin.

Although there is certainly some truth in the theoretical concept of 'resource capture'[190] in relation to the past and current conflicts found in Awash, this is the result of a wide range of factors, including the relative *abundance* of some resources in the basin. The case of the protection of irrigation schemes that were subsequently a primary scene of conflict provides one example. There is no evidence to suggest that when irrigation schemes

were established, the 'capture' of land and resources (water) had any relationship with local population growth and environmental decline, which Homer-Dixon refers to as 'environmental scarcity'. Instead, the establishment of the irrigation schemes in key resource areas used by pastoralists was the result of decisions reached by more powerful sectors of society to use the relatively abundant resources for personal and, arguably, 'public' good. That this environmental discrimination was at the expense of marginal, less powerful groups within society was immaterial.

Furthermore, the power of such marginal groups, particularly pastoralists, is increasingly reduced over time owing to the 'transitional' nature of their society. Pastoralists are struggling to 'modernise' and adapt their livelihoods and cultural practices to current political, social and economic stresses across the landscape. As a result, what have been described as 'social fault lines' have developed, such as a breakdown in traditional authority and control. "Social fault lines," can be "manipulated by 'actors' in struggles over social, ethnic, political, and international power" resulting in violent conflict that is triggered by the environment.[191] This would appear to be the case in Awash, where local communities, particularly pastoralists, have been manipulated by governments and used in relation to the heavy mix of social, ethnic, political and international issues that shape the fractured political landscape of the Afar region. As a result, violent conflict triggered by environmental issues has ensued.

Conflict in the Awash Basin is likely to continue.[192] To prevent the situation from becoming more violent will require that ecological factors in conflict receive greater research and policy attention. Furthermore, ecological factors should be fully recognised and accounted for in conflict prevention and resolution processes and policies. At the same time, the inherently political nature of such conflicts needs to be recognised. Many sources of conflict can only be addressed at regional and national levels. A more concerted effort should be made to do so. Links should also be made with the local actors in building peace. Learning and applying traditional methods of conflict prevention and management must be a priority for regional and national conflict prevention and management strategies. National strategies, however, may become more difficult as regions become stronger and regional identities more firmly established. Therefore, it is vital that work begins now to ensure that a firm basis for conflict prevention/resolution is established across regions and the country.

Case Study 2: the Nile Basin

The focus here is on the water resources of the Nile and the three major states competing to control Nile waters, namely, Ethiopia, Sudan and Egypt. The Nile waters originating in Ethiopia, the Blue Nile, are hydrologically

distinct from those flowing from the White Nile Basin (Rwanda, Burundi, Uganda, Tanzania and Kenya). The Blue Nile, which originates from Lake Tana in the Ethiopian highlands, contributes the major part of the water resources of the Nile going downstream to Sudan and Egypt. Accordingly, it is Egypt, Sudan and Ethiopia that have a major stake in the management and use of Nile waters, which may be a potential source of conflict in the future. Moreover, the current Nile Basin Initiative (as described below) also accounts for this possibility: Ethiopia, Sudan and Egypt are grouped as the 'Eastern Nile Basin countries'.

A significant part of the average annual flow of the Nile (estimated at 84 billion cubic metres at Aswan High Dam in southern Egypt) originates from the Ethiopian plateau, crossing Ethiopia's western boundary into neighbouring Sudan and then to Egypt, before emptying into the Mediterranean Sea. Ethiopia contributes 86% of the total annual flow of the Nile going downstream to Sudan and Egypt, whose major river basins are the Baro-Akobo (Sobat), Abbay (Blue Nile) and Tekezze (Atbara). In fact, the Blue Nile contributes approximately 95% of the Nile waters during the long rainy season (July–September), and 86% overall annually. The remaining 14% is contributed by the White Nile catchment area that includes Rwanda, Burundi, Tanzania, Uganda, Zaire, Kenya and Sudan. Sudan and Egypt do not contribute to the waters of the Nile but are the predominant users of its waters to date (Table 9).

In this sense, it comes as no surprise that Egypt, which is the lowermost riparian state and almost entirely dependent on the waters originating outside its borders, is concerned by the development and use of Nile waters in Sudan and Ethiopia. Ethiopia is similarly concerned with water resources development downstream in Egypt and Sudan because of the fact that these might pre-empt its own plans to develop the water resources of the Nile flowing within its territory. In other words, the Nile is a key factor determining the relationship between Egypt, Sudan and Ethiopia, and is a potential source of conflict.

From a hydrological point of view, the Nile ties Ethiopia, Sudan and Egypt, forming the basis and opportunity for integrated and cooperative management and use. However, the existence of political boundaries and consequent divergent national interests and priorities has led to competing and sometimes conflicting interests and demands over the use of its waters. The use of Nile waters has been politicised, and remains contentious between the different basin countries. Historically the Nile was developed to meet the unilateral needs and demands of the two downstream riparian states (Egypt and Sudan) without any tangible benefits for Ethiopia.

Egypt's major strategy (and to a lesser extent that of Sudan) was to secure an uninterrupted and stable supply of Nile waters. The Nile is vital for agricultural production and freshwater supplies in the two countries, but originates

Table 9: Contribution to the Nile[193]

Catchment	Tributary	Annual contribution (%)	Flood period (%)
Ethiopian highlands	Blue Nile (Abbay)	59.0	68.0
	Sobat (Baro-Akobo)	14.0	5.0
	Atbara (Tekezzie)	13.0	22.0
Equatorial lakes	Bahr-el-Jebel (Upper White Nile)	14.0	5.0
Total		**100**	**100**

outside its borders. The fear that a hostile power in the upper reaches of the Nile might sometime in the future 'block' water flows downstream led European colonial powers and Egyptian leaders to seek different means of controlling the Nile and to coordinate the development of water resources throughout the basin.[194]

For instance, the construction of the High Dam at Aswan in Egypt was primarily geared to ensure security against the consequences of unreliable annual flow of the Nile and the need for securing control over the water supply of the Nile by the downstream states.[195] The Dam fragmented use plans and development strategies in the Nile Basin with no involvement of the other upstream countries or consideration of their national development interests, including Ethiopia.

There is no comprehensive agreement on the use and allocation of Nile waters to date. The bilateral agreement concluded between Egypt and Sudan in 1959, otherwise known as the 1959 Nile Waters Agreement, allocated the entire flow of the Nile to the two downstream states to the exclusion of the upstream riparian states.

The current unbalanced allocation of Nile waters is unlikely to persist into the future. Ethiopia is faced with increased population pressure, and consequently is increasing its demand for the use of the Nile waters to meet its development needs, including improving rural livelihoods in the Ethiopian highlands. The importance of using the Nile waters for irrigated agricultural production in Ethiopia is considered of crucial priority in order to mitigate uncontrolled environmental degradation and recurring drought and famine in Ethiopia over the past several decades. Growing demands for Nile waters by the different basin states has fuelled competing demands, leading to tension and potential conflicts should an agreement not be reached.

The growing population, particularly in Ethiopia, is increasing demands for Nile waters. The total population of the Nile Basin countries in 1995 was

estimated to be around 250 million and is expected to reach 640 million by the year 2025. The population of Ethiopia will more than double from its current 60 million to 120 million, while Egypt's population is estimated to reach 94 million by 2025. This means that Ethiopia's population will be 20% higher than Egypt's by the year 2025. Increased demands for Nile waters may contribute to greater interstate tensions as the different basin states demand larger shares of the available Nile water supply, particularly in light of the absence of a basin-wide agreement on allocating Nile waters at present.

The economies of the different Nile Basin countries are predominately agriculturally based. Egypt's share of the agricultural sector as a percentage of its GDP significantly declined from 34.3% in 1955 to 20% in 1990 as a result of its expanding industrial sector.[196] In comparison, Ethiopia and Sudan's share of the agricultural sector is still significant, amounting to 40% and 36% of total GDP respectively. Over 80% of the Nile waters are used for irrigated agriculture in both Egypt and Sudan, while Ethiopia has not developed Nile waters flowing through its territory. The agricultural policies of all three countries are to attain national food security by increasing domestic food production, mainly by increasing irrigated agriculture.

Since the agricultural sector is the largest water consumer, there are growing pressures on the already limited Nile waters, leading to competing demands among Egypt, Sudan and Ethiopia. Currently, only Egypt has been able to diversify its economy away from agriculture. Moreover, Egypt imports two-thirds of its food requirements and this trend will continue despite efforts to boost domestic production.[197] Egypt's current agricultural policy and the economic viability of expanding agricultural production through reclamation of new lands are widely questioned.

Instead, it is suggested that Egypt import 'virtual' water in food staples instead of relying on current Nile water supply to increase domestic food production.[198] However, Egypt considers its strategy of increased agricultural production as a matter of national interest and security and does not seem willing to pursue a virtual water policy, at least in the short term. Both Ethiopia and Sudan lack the capacity to diversify their economies in the short to medium term because of their weak economies and current domestic instability. They will therefore likely continue to depend on the water resources of the Nile to boost their agricultural production.

In addition, the role of external actors in contributing to the potential conflict in the Nile should not be underestimated. Britain's presence as a colonial power in Egypt, Sudan and in the East African territories (Uganda, Kenya and Tanzania) enabled it to ensure the protection of Egyptian interests as the primary user of the Nile, mainly because of British strategic and economic interests in Egypt at the time.[199] This was done through a series of agreements with the upstream riparian countries aimed to ensure non-interference with the flow of the Nile by upstream states without the prior consent of Egypt

and/or Sudan. The validity of these agreements is a source of controversy and disagreement between the upstream riparian countries and the downstream countries in the post-independence period. All the upstream riparian countries, including Ethiopia, reject the validity of these agreements because of their colonial and unilateral nature, while Egypt and Sudan claim that these treaties are still valid because they are boundary agreements.

Apart from the Nile waters, there is little that binds Ethiopia with the two downstream countries in terms of economy, language, culture and religion. Egypt and northern Sudan are predominantly Islamic and Arabic speaking. Moreover, they were both under British colonial control from 1889 onwards. It is at this time that the first steps towards economic and hydrological ties were taken. However, there is also the fact that Egypt's perception of Sudan was historically colonialist because of Egypt's commercial and military dominance in the region. Moreover, the engagement of superpowers in the basin during the Cold War, and shifting allegiances at the time influenced by increased control over the water resources of the Nile, increased tension among the basin countries.

The other factor that has limited development of Nile waters in the basin is the weak economies of the different countries. Except Egypt, which has a comparatively stronger economy, the other riparian countries lack the investment and capital to develop infrastructure to harness the Nile waters. Thus, the role of bilateral and multilateral agencies in promoting cooperation is vital, since they can target funds to projects having mutual benefits for the different basin states. The policies of some international financial institutions such as the World Bank (which follows a 'no objection' criteria for providing funds) are often criticised on the basis that it increases the risk of conflict between the riparian states by neglecting to give necessary funding to develop water resources in Ethiopia, which may alleviate widespread poverty and food insecurity in the country.[200]

Historical Factors in the Conflict

For the two downstream countries, particularly Egypt, securing an uninterrupted and stable Nile water supply has been the foremost concern of political leaders from time immemorial. Control of Nile water is a primary strategic concern for Egypt since it is highly dependent on Nile waters to sustain the livelihoods of its people historically and today. Indeed, the oft-quoted expression that "Egypt is the Nile, and the Nile is Egypt" has lent some credence to the Nile being considered by many Egyptians as a symbol of national security.

The sense of vulnerability and consequent fear that upstream countries might block the waters have largely guided Egypt's management and policy on Nile water. Egypt uses a mixture of complex technological, legal and political means to attain greater water security.

During the early period of the pharaohs, irrigation in Egypt was largely dependent on the floods coming from the Ethiopian highlands. The scarcity or abundance of rainfall in Ethiopia, therefore, was strongly related to harvest sizes in Egypt. Egyptian rulers used to believe that the reduction of the flow of the Nile was due to Ethiopian rulers diverting the flow of the Nile. In some periods, Egyptian pharaohs sent tribute to Ethiopian kings for them not to obstruct the Nile waters.[201] There were also instances when Ethiopian kings threatened to divert the course of the Nile, particularly when it was believed that Orthodox Copts in Egypt were being persecuted.

Irrigated agriculture expanded continuously in Egypt, enabling cultivation of large land areas under perennial irrigation by the end of the 19th century. It was, however, after Britain colonised both Egypt and Sudan that a series of ambitious schemes were proposed to develop the Nile waters in upstream countries in order to increase water flow downstream (in Egypt). These plans, otherwise known as the century storage schemes, were later abandoned mainly due to Egyptian fears that its economic fortunes would be tied inextricably to the actions of upstream basin states. The Egyptians preferred to construct a giant over-year storage dam at Aswan that would be located entirely within Egyptian territory. This, it was felt, would enable Egypt to finally secure under its control water supplies from the Nile, rather than depend on delicate resource-sharing arrangements with upstream basin states.

The Aswan High Dam may have served to enhance Egyptian control of the national water supply by protecting it from fluctuations of the annual flow of the Nile coming from upstream countries, particularly from the Ethiopian plateau. It also serves as a political symbol of national security to Egyptians. However, the dam had many critics from its inception because of its questionable economic viability and the fact that the loss through evaporation from the dam is among the highest in the world.[202]

British colonisers tried to secure water supplies from the Nile for Egypt through a series of agreements that invariably sought to invoke Egypt's first claim to use Nile waters. One of the main concerns in this period was to ensure that the major flow of the Nile originating in Ethiopia should not be interfered with. Accordingly, Britain signed a protocol in 1891 to which Italy, as the colonial power in Eritrea, undertook not to construct works on the Atbara (Tekezze) that might modify the downstream flow of the Nile. In 1902, Britain, on behalf of Sudan, concluded an agreement with Emperor Menelik of Ethiopia. One of the provisions stated that Ethiopia should not undertake any construction works on the Blue Nile, Lake Tana or the Sobat (Baro-Akobo) that would reduce the flow of the Nile except with the agreement of Britain and Sudan.

During the post-independence era, the most significant agreement was the 1959 Nile Waters Agreement that allocated the entire flow of the Nile between Egypt and Sudan. The allocation was based on the annual flow of the Nile

estimated on average at 84 billion cubic metres. By this agreement, Egypt was allocated a share of 55.5 billion cubic metres and Sudan 18.5 billion cubic metres, while 10 billion cubic metres was left as loss from evaporation at the Aswan High Dam. This agreement also envisaged possible future claims by upstream riparian countries and provided that if the claims of any riparian states be accepted by both parties (Egypt and Sudan) then the accepted share would be equally deducted from their current share. It is worth noting here that this implies consent by the two downstream countries, Egypt and Sudan, before any upstream country is allocated a share of Nile waters.

There are still divergent positions between the upstream and downstream countries as to the validity of both the colonial agreements and the 1959 Nile Waters Agreement. As a bilateral agreement, the 1959 Nile Waters Agreement is effective only between Egypt and Sudan. However, some contend that this bilateral agreement gives Egypt and Sudan an 'established', 'historic' or 'acquired' right over the waters of the Nile, and therefore the agreement is non-negotiable and should be respected by the upstream riparian countries.[203] On the other hand, others stress that the Nile Waters Agreement is a bilateral agreement and could not in any way affect the rights of upstream states to utilise the waters of the Nile and that the claim to historic rights has no basis in current international law.[204]

Likewise the colonial agreements are also rejected by the upstream riparian states mainly because of their colonial and non-reciprocal nature. Ethiopia has made its position clear in several official communications to the effect that these agreements do not affect its rights to use Nile waters within its territory to pursue its development objectives.[205] It is also noted that one of the major sticking points in the current Nile Basin Initiative is the status of the existing agreements. Egypt and Sudan still claim that any water use in upstream countries should not affect existing water allocation agreements.

Apart from the various colonial and post-colonial agreements intended to unilaterally secure control of the Nile waters, historical records show that Egypt attempted to secure the origin of the Nile in Ethiopia through repeated incursions in Ethiopian territory. The Battle of Gedarif in 1882 and the Battle of Gura in 1832 are examples.[206] The war of words between Egypt and Ethiopia is still frequently rife, particularly at times when Ethiopia proposes plans to develop its share of the Nile waters. Past acrimony has dampened potential cooperation in sharing the Nile waters fairly between Egypt, Sudan and Ethiopia.

Evident from the above is that there has not been a significant attempt in the past to achieve basin-wide cooperation in the Nile, because the river has never been considered a common resource between the different basin countries. Rather, unilateral development of the Nile was and remains the rule. Past utilisation of Nile waters aimed to achieve one objective: to ensure the secure control of Nile waters for Sudan and, particularly, Egypt. Water

resources development in the Nile was premised largely on achieving water security for Egypt irrespective of the potential demands that the other upstream states such as Ethiopia may have at any future time. Egypt considers secure control of the Nile waters an issue of national survival, as indicated earlier.

On the other hand, for several decades, Ethiopia is increasingly vulnerable to recurrent drought and famine. This is commonly attributed to dependence on rain-fed agriculture in the Nile Basin in Ethiopia. Attainment of food security in the country requires the development of irrigated agriculture on a large scale, which will affect the current allocation of waters to downstream riparian states. Moreover, irrigated water resources development in the Ethiopian plateau is the only alternative that could stem worsening environmental degradation within the basin and prevent mass migration of the increasing population to other areas of Ethiopia.[207]

It is cautioned that "close attention needs to be given by all concerned to the implications of the probable doubling of the population of the Ethiopian Nile Basin during 1996–2020, with respect to the impacts on food security, use of the Nile waters and increased potential for conflict if that population continues to depend on peasant farming".[208] In the light of this, future cooperation among Ethiopia, Sudan and Egypt might depend on the extent to which Egypt and Sudan are prepared to relinquish a portion of their allocation of Nile waters to give way to consumptive hydraulic works in Ethiopia.

Increased Competition over Limited Nile Water Supply

One of the most crucial issues that tends to fuel tensions between the two downstream countries, Egypt and Sudan, on the one hand, and Ethiopia, on the other, is the equitable distribution of the water supply of the Nile among these basin states to satisfy their national water demands. The most contentious issue is that of water demand for irrigated agriculture, which consumes most of the Nile waters.

Egypt is already using its allocated share under the Nile waters agreement (55 billion cubic metres) and possibly even an additional six billion cubic metres, as Sudan is not yet in a position to use its allocated share. Ethiopia is currently in need of water for irrigated agriculture to attain national food security and mitigate famine and drought, to which its growing population is highly susceptible. This is currently estimated at around 30.5 billion cubic metres according to the recent master plan studies conducted in the three sub-basins of the Nile.[209]

However, Egypt and Sudan do not appear ready to reduce their allocations of waters to accommodate claims by Ethiopia. Both Egypt and Sudan argue that the share of Nile waters endows them with an historical right that is sacrosanct and not negotiable. In fact, Egypt is currently increasing its

irrigated area substantially through desert reclamation schemes in the Sinai and in the south-western area of the county, under the New Valley Development Project. These projects apparently require an estimated additional eight billion cubic metres of water annually.[210] Egypt's position is that any reduction of its share of Nile waters under the 1959 Nile Waters Agreement will be ruinous. Said contests: "... major dams intended for long-term storage at the Blue Nile headwaters ... will seriously affect the water available to Egypt and Sudan. For Egypt, in particular, they could wreak havoc on the many land reform projects underway in the Delta, Sinai and Upper Egypt."[211]

Others argue that the construction of the reservoirs upstream on the Blue Nile in Ethiopia will benefit all three countries by significantly reducing the loss of water through evaporation at the High Aswan Dam, as well as carefully regulating the upstream flow to prevent further losses there.[212] Collins explains: "... ironically, the Blue Nile plan if properly managed would not substantially affect the water available to Egypt and the Sudan. Under appropriate working arrangements the amount of water for irrigation throughout the Nile Basin could actually be increased."[213] There exist possible alternatives for cooperation in the Nile Basin that would be mutually beneficial to all basin countries and mitigate tensions that currently exist between Ethiopia and downstream riparian countries. However, to attain this level of cooperation will require confidence-building measures between the different basin countries.

Egypt's intransigence lies in its concern of losing control of its water supply from the Nile. Ethiopia may need to reassure the Egyptians that its proposed developments of Nile waters will not reduce the share of waters Egypt currently enjoys. Wittington and McClelland contend, "...the possibility of the Blue Nile reservoirs being operated during drought to strategically withdraw water from Egypt is an ancient nightmare of Egypt, and Ethiopia must offer specific and concrete proposals to allay Egyptian fears in this regard."[214]

Political Relations

Use and control of the Nile waters has greatly influenced the political relations between Egypt, Sudan and Ethiopia. Because of the perception in many Egyptian circles and by Egyptian leaders that any change in allocation of Nile waters is a threat to their national security, Egyptians on occasion have insinuated threats of force. These threats were usually in response to Ethiopia officially asserting its rights to use the Nile waters. In 1979 when Ethiopia announced that it would use the waters of the Blue Nile, Egyptian president Anwar Sadat responded by threatening to bomb any diversion projects. Egypt has also accused Ethiopia on several occasions of cooperating with Israel to build dams on the Blue Nile, although there is no concrete evidence to support this allegation.[215] In a recent article in *Al-Hayat*, Said contends that

Ethiopia's plans to use the Nile waters was politically motivated and not based on any genuine need to do so. He attributes this to the instigation of the United States during the reign of Emperor Haile Selassie or the Soviet Union during the military regime.[216]

Past relationships between the basin states are marred by a lack of mutual trust. Political alliances in the Cold War era have also stoked tensions between the different basin states. Ethiopia's support of the Sudanese People's Liberation Army (SPLA) and Sudan's support of the Eritrean Peoples Liberation Front (EPLF) have also contributed to the postponement of negotiations on the Nile. Moreover, even where Egypt and Sudan attempt to cooperate with Ethiopia in sharing the Nile waters, Ethiopia is deeply suspicious because it feels that any agreement would favour the Egyptian and Sudanese interests over Ethiopia's.

One of the basic objectives of the current Nile Basin Initiative, which is discussed at length in the next section, is to build trust and confidence among the Nile Basin states concerned.

Cooperative Efforts on the Nile

The first intergovernmental initiative to promote cooperation in the Nile Basin was established in 1967. It was known as the Intergovernmental Committee for the Hydro-Meteorological Survey of Lake Victoria, Kyoga and Lake Albert (the Hydromet Project) and was funded by the UNDP. The basic objective of the project was to collect and analyse hydrological and meteorological data in the Great Lakes catchment area. It also envisaged laying the groundwork for intergovernmental cooperation in the storage, regulation and use of Nile waters. All Nile Basin countries, except Ethiopia, were members of this organisation, based in Entebbe, Uganda. Ethiopia joined Hydromet as an observer in 1971. Ethiopia opted to remain an observer to the Hydromet mainly because Egyptian and Sudanese interests dominated its agenda. Hydromet did not discuss substantive issues, including the allocation of Nile waters, or entitlements of upstream riparian countries to use Nile waters.[217] The Hydromet ended in December 1992, because member states felt a need to redefine the objective of future cooperation in the Nile Basin to the satisfaction of all riparian countries in order to achieve a lasting basin-wide cooperation in allocation and use of Nile waters.

Following the Hydromet, the Technical Cooperation Committee for the Promotion of the Development and Environmental Protection of the Nile Basin (TECCONILE) was established in 1992 with the initial support of the Canadian International Development Agency (CIDA). Egypt, Sudan, Tanzania, Uganda, Rwanda and Zaire were members, while the other four riparian countries, namely, Ethiopia, Kenya, Burundi and Eritrea participated as observers. In conjunction with the establishment of the TECCONILE, a

Council of Ministers of Water Affairs of the Nile Basin states was formed acting as the highest decision making body. At its third meeting at Arusha, Tanzania in 1995, the council of ministers endorsed the Nile River Basin Action Plan that identified several projects of regional and sub-regional interest. One of the projects is known as the Nile Basin Cooperative framework (otherwise known as Project D3). It was endorsed by all the countries and is currently being implemented with the support of the UNDP.

In 1995, the council of ministers requested the World Bank to take a lead role in coordinating the inputs of external agencies to finance and implement the Nile River Basin Action Plan. This was accepted by the World Bank, which undertook the task in partnership with UNDP and CIDA. A review of the Nile River Basin Action Plan was undertaken and led to the formation of what is currently called the Nile Basin Initiative.

The Nile Basin Initiative (NBI) was officially launched in Dar es Salaam, Tanzania in February, 1999 at an Extraordinary Meeting of the Nile Basin Council of Ministers. For the first time, all Nile Basin states became members of the NBI, with the exception of Eritrea. It is envisaged that the initiative will serve as a transitional mechanism pending an agreement to be reached amongst the Nile riparian countries on a permanent legal and institutional framework under the ongoing Nile Basin cooperative framework that is part of the NBI.

The NBI is governed by a Council of Ministers of Water Affairs of the member countries. This Council is the highest decision-making body and has the responsibility of setting out policy and guidance on issues related to the Nile waters. Under the council is a technical advisory committee that consists of two senior officials from the member countries who give support and technical advice to the council of ministers. A secretariat was also established in Entebbe, Uganda, which began operations from June 1999.

The NBI is guided by a commonly agreed shared vision: "... to achieve a sustainable socio-economic development through the equitable utilisation of, and benefit from, the common Nile Basin water resources".[218] To translate the shared vision into concrete actions, the NBI comprises two main complementary strategic action programmes, namely, the Shared Vision Programme (SVP) and the Subsidiary Action Programme (SAP).

The SVP is a basin-wide programme that is intended to create an enabling environment for cooperative action in the Nile Basin through building trust, and negotiating capacities and skills of the different delegations. Projects aim to contribute to building a strong foundation of mutual trust among the Nile Basin countries by enlarging human and institutional capacity and creating the opportunity for basin-wide engagement and dialogue. These, it is believed, will facilitate agreement on a permanent legal and institutional framework.

The framework is currently under negotiations by the riparian countries as part of the Nile Cooperative Framework Project. The SVP currently

comprises seven projects, including the Nile Trans-boundary Environmental Action; Nile Basin Regional Power Trade; Efficient Water Use for Agricultural Production; Water Resources Planning and Management; Confidence-Building and Stakeholder Involvement; Applied Training and Socio-Economic Development and Benefit Sharing. The indicative cost to implement the above seven projects is estimated at approximately US$ 122 million.

As indicated earlier, negotiation on establishing a cooperative framework is ongoing, with the support of the UNDP since 1995 (Project D3). The main purpose of the Nile River Basin Cooperative Framework is to agree upon a set of legal and institutional principles on the basis of which future cooperation on the use and management of Nile waters is to proceed. A panel of experts composed of three members from each Nile Basin country was formed in 1997 to establish a set of commonly agreed legal and institutional principles to cooperatively manage the Nile waters. Although agreement was reached on some provisions, there are still disagreements on some substantive issues in the document. The issues that remain unresolved relate to the status of existing agreements, the relationship between the principle of equitable entitlement and the obligation not to cause significant harm, as well as procedures related to planned projects within the Nile Basin.[219] As in the past, Egypt and Sudan are opposed to any reduction of their allocation of waters under the 1959 agreement. Meanwhile, upstream riparian states demand a new water sharing agreement.

Of particular significance are the subsidiary action programmes which aim to identify water resource development projects at the sub-basin level involving two or more countries and to account for "... benefits and effects of planned activities on other countries".[220] Possible development projects are hydropower development and interconnection, irrigation and drainage, environmental management, river regulation, drought and flood control, and water use efficiency improvements. Accordingly, the subsidiary action programmes were developed on the basis of two distinct sub-basins, namely, the Eastern Nile Subsidiary Action Programme (ENSAP) comprising Egypt, Sudan and Ethiopia, and the Nile Equatorial Lakes Subsidiary Action Programme (NELSAP) comprising Burundi, the Democratic Republic of Congo, Kenya, Rwanda, Tanzania and Uganda. Egypt and Sudan also joined as participants in the development of the programme in November 2000.

The ENSAP (which includes Ethiopia, Sudan and Egypt) identified a set of seven major sub-projects deemed to be mutually beneficial to all basin countries. These include: the Eastern Nile Planning Model Sub-Project; Baro-Akobo Multi-purpose Water Resources Development Sub-Project; Flood Preparedness and Early Warning Sub-Project; Ethiopia-Sudan Transmission Interconnection Sub-Project; Eastern Nile Power Trade Investment Programme, Irrigation and Drainage Sub-Project; and the Watershed Management Sub-Project. Of these, four (Eastern Nile Planning Model; Flood Preparedness and Early Warning;

Ethio-Sudan Transmission Interconnection and Watershed Management) are considered to be 'fast-track' and will proceed at an accelerated pace for final appraisal. These initial investments are considered to be of crucial importance to build confidence among the riparian countries, as well as to demonstrate real results on the ground after years of policy dialogue. An Eastern Nile Regional Office is being set up in Addis Ababa, Ethiopia.

To secure the required financial support from the international community for the cooperative water resources development projects and other projects identified in the strategic action programme of the NBI, an International Consortium for Cooperation on the Nile (ICCON) was initiated by the World Bank. The first meeting of ICCON was held in Geneva, Switzerland in June 2001. The participants at the meeting included the international donor community, the Ministers of Water Affairs of the Nile Basin states and some Ministers of Finance and Planning, as well as other water resources experts from the basin countries. Donor statements at the meeting supported the strategic action programme as an important step to achieving cooperation in the Nile Basin. The ICCON promised initial financial support of at least US$ 140 million and support for the first phase of the US$ 3 billion investment programme in the respective sub-basins once the projects are ready for funding.[221]

The Nile Basin Initiative can be seen as an important step in paving the way for Nile Basin countries to seriously consider cooperation in the utilisation and management of the Nile waters. Ethiopia has for the first time joined such a cooperative initiative with the expectation of being able to significantly tap the water resources of the Nile to meet the various demands of its growing population.

All basin countries seem to consider the NBI as a positive step that should lead to a stronger cooperation in the future. However, the expectations of the different riparian states of the current cooperation differ. Ethiopia expects to get tangible benefits in terms of increased agricultural production and generation of hydropower to export to Sudan. It also intends to improve environmental management by reducing population pressure in areas of high population density during the first phase of the projects identified in the eastern Nile. Egypt and Sudan do not want their uses of Nile waters adversely affected by developments in Ethiopia. However, it is recognised that the projects identified during the first phase are of limited significance and that they will not meet all the water demands within the basin, particularly for irrigated agriculture.

Conflict Prevention and Resolution

The Nile Basin Initiative (NBI) is a positive step forward because it provides some incentives, mainly financial, for the Nile Basin countries to move forward to identify and eventually implement joint and mutually beneficial projects.

To what extent these projects will meet the basic demands of upstream countries such as Ethiopia, particularly in the area of irrigated agriculture, is undetermined. The NBI has also helped to convene water resource experts, politicians, and bureaucrats from the riparian countries to substantively consider different options for cooperation, and to reconcile the different interests and views of competing basin countries. Mutual trust and understanding of differing perspectives also seem to have improved among the negotiators involved in the process.

The riparian countries are more open to raising public awareness on negotiations and the issues that are under consideration by the different countries. The benefits of cooperation are more widely espoused through the media and by organising workshops that involve various stakeholders. This seems to have generated greater confidence among the public that the current cooperation is intended to enhance the welfare of the different basin peoples.

However, there are still some areas where little understanding has yet been reached, particularly regarding legal principles and institutional mechanisms that serve as the basis for future water allocation and management of Nile waters. Egyptian and Sudanese positions regarding allocation of Nile water are unchanged from earlier negotiations.

From a conflict prevention and management perspective, the role of the World Bank and other multilateral and bilateral funding agencies such as the UNDP and CIDA is useful in bringing together the competing basin countries. The World Bank's experience in the Indus River dispute between Pakistan and India seems to have influenced the approach to conflict prevention and resolution in the context of the Nile. In both cases, the main instrument is the provision of financial support for investing in water resources development projects that encourages the competing sides to see tangible benefits on the ground.

The World Bank was highly successful in resolving the conflict over water in the Indus Basin case. This may also be possible in the Nile Basin. However, there are certain differences in the Nile that may challenge cooperation among the Nile Basin states. First, the number of riparian states participating in negotiations is greater in the Nile Basin. More diverse national interests, therefore, are at stake. Second, the lower riparian states, particularly Egypt, have been the major beneficiaries to date in the Nile Basin and may not want a significant change in the present allocation of Nile waters, even should such change reduce regional tensions. Ethiopia in this case may abandon consensus-building initiatives. However, Ethiopia may withdraw in any case if it feels that no significant benefits are forthcoming from the initiative process.[222]

It is in no country's interest to pursue a unilateral policy of developing water resources that will increase the possibility of competition and conflict rather than seek ways of cooperation and consensus building. Previous conflict and political instability in Ethiopia has helped to postpone the issue of

water allocation. However much instability and conflict have contributed to the passive acceptance of past inequalities in the allocation of Nile waters, they are not factors that one can depend on in the future.

The Nile Basin Initiative is a step in the right direction and might bring mutual benefits to the different riparian countries. One can sense from consulting those directly involved in the negotiations that there is greater confidence that the current cooperative initiative is the only way to achieve tangible results towards a long-lasting solution for cooperation in managing and using the Nile waters.

Conclusion

Social and political issues have rarely been factored into water development and utilisation programmes in the past. This chapter has highlighted the role of social and political factors in resource competitions in Ethiopia. Indeed, the distribution and use of water is a highly contentious issue from the water point all the way up to the regional basin level in north-east Africa. To some extent, recognition of potential conflict over the use of waters that flow beyond Ethiopia's borders has constrained their development. The lack of technical skills and international investment, coupled with chronic political instability and conflict, has meant Ethiopia has not developed the Nile waters, for example.

At a national level, serious conflict and competition over the distribution and uses of water remain. These centre on large-scale water schemes that were constructed beginning in the 1950s to expand agricultural production, increase power generation and supply water to Addis Ababa and a few major towns. The irrigation schemes, however, were developed without consideration of local needs and uses of key resource environments where the irrigation schemes were constructed. As a result, conflicts have occurred between local communities, commercial companies, government authorities and others. Poorly informed and planned aid and development interventions have worsened the insecurity of rural poor in many areas.

The irrigation schemes were, to a large extent, concentrated in the Awash Valley to sustain state-owned sugar estates and fruit and cotton farms. In most cases, the irrigation schemes failed to involve the local farming populations and ignored schemes devised using customary methods to irrigate smallholder plots. At the same time, the development of large-scale irrigation schemes forced traditional land users such as pastoralists off the riverine lands. Pastoralists, however, are highly dependent upon the key resource areas near to the river for dry season pasture, as well as access to water points.

The livelihood strategies of pastoralists that were prohibited from accessing resources near to the river were completely undermined. Pastoralists were

forced to reorganise customary grazing patterns, leading to greater tension and competition as rights to resources throughout the area were challenged. In addition, pastoralists were not able to use many areas of arable land and plentiful pasture because of persistent insecurity and conflict. As a result, in recent years there has been an increasing emphasis on protecting resources from other users, including constructing fences around pastures and 'privatising' the use of wells. Traditional values of reciprocity and resource sharing are threatened by growing individualism and protectionism.

Ironically, many irrigation schemes have since fallen into disrepair and thus are either not functioning at full capacity or at all. This is common throughout Ethiopia where technical know-how and access to mechanical parts for repairs is low. In addition, the very nature of the water proves incapacitating: the flow of water is highly variable, thus requiring the use of large storage facilities. Silt also concentrates, reducing the storage capacity of dams and damaging equipment. Despite government investment and support in the early 1990s, commercial support for irrigation schemes has not been forthcoming and a number of proposed schemes throughout the country were suspended or abandoned. Where schemes are functioning, local opposition is common, and expressed by lack of support in the way of maintenance and 'vandalism'. Unless local or community issues are addressed within irrigation and other development schemes, then conflict and insecurity will persist in areas of 'development'.

Conflict continues in the Awash Valley. The majority of the indigenous population still relies on transhumant animal husbandry. The area lacks most services and there are continual food and water security problems. Patterns of pastoral migration have been disrupted, alternative strategies have been sought (including land enclosure and sedentarisation), conflicts between neighbouring pastoral groups have intensified and the pressure on remaining resources has increased. Since the change of government in 1991 and the introduction of market-based policies, the state has embarked on the sale of some of its assets, including many irrigation schemes. This has fuelled further conflict as some clans were favoured in the sale of land from irrigation schemes.

National level water resources are currently managed by the Ministry of Water Resources (MoWR), which acts as a reasonably unified central water organisation. The ministry is mandated to develop policy and undertake implementation, operation and regulatory work of water, including irrigation. However, the organisational set up is sorely lacking in capacity and efficiency, and as a result the ministry has little power to implement a sound water policy, particularly one that addresses the very complex issues of social equity and conflicts so intricately tied up with water usage.

The MoWR is responsible for upstream water resources control and development activities, including the determination of conditions and methods for optimal allocation and utilisation of water that flows across more than one region. The ministry is expected to work closely with regional water bureaux

and commissions or authorities, though in reality the flow of information, skills and capacity between the different levels of government is severely hampered by internal politics and the lack of resources. Lower levels of the institutional hierarchy, such as the zone, *wereda* and *kebele* levels are incorporated in decision making to an even more limited degree. Community participation in water development and decision making is virtually non-existent. In addition, there is little evidence to suggest that either the ministry or the regional governments have incorporated conflict analysis and resolution within their policies and practices. These issues need to be urgently addressed in the future as pressure increases to improve the effectiveness of water development and utilisation increases.

Plans are underway for the construction of 13 power-generating dams and an irrigation development project covering 590 000 hectares of land through the joint projects designed by the Nile riparian states. Coordinating offices to manage and facilitate these joint projects involving Ethiopia, Sudan and Egypt, will be opened in Addis Ababa. In addition, regional governments are mobilising resources to expand irrigation.

However, for these schemes to be sustainable, a number of constraints need to be addressed, including continuing organisational problems within the institutions responsible for water, as well as the development of appropriate technology that is sensitive to Ethiopia's varied topography and natural constraints. But most importantly, the social impacts of water development must be fully considered and mitigated where possible. Adaptable, flexible and site-specific strategies are required, and the potential and actual conflicts between different water users identified. The rights and needs of both upstream and downstream users must be understood and guaranteed. And local and national conflict prevention and resolution mechanisms need to be incorporated into all aspects of water development, including international agreements for water use. This includes ongoing negotiations over the allocation and use of Nile waters.

It should be recognised that conflict can have positive results and should not be viewed in a completely negative light. Conflict can bring underlying issues out into the open, and bring parties together for negotiation. Positive, non-violent outcomes are possible through conflict. In this way, conflict is transformative. However, this requires a relatively level playing field, which is in many cases missing, such as in the Awash River Basin. Levelling the playing field will require difficult decision making to distribute resources required in negotiation and dialogue more equitably. Decisions to build peace must be informed and 'fair' in order to be effective. In addition, donors must increase support to enhance the capacity of federal, regional and local institutions to undertake conflict prevention and resolution and to facilitate participatory peace dialogue at all levels.

This study answers a number of critical questions concerning the linkages between ecology, environment and conflict in Ethiopia. However, the broader

social, political, economic and historical context in which competitions for land and resources occur is vital to comprehensively understand the role of 'ecological' factors in conflict in Ethiopia. These are embedded in geopolitics, imperialism, ethnicity, international issues (such as trade), strategic interests, as well as the (un)democratic institutions of the state.

On an annual basis and in normal years, Ethiopia has more than sufficient fresh water for the needs of its population. However, its distribution is highly variable. Water, therefore, can be considered to be both abundant and scarce at varying times and places, and for different groups and individuals. In areas of scarcity, land and resources can trigger conflicts. These conflicts have intensified due to resource capture by stronger elements in society. Therefore, though water and other ecological resources do play an important role in conflict, they cannot be separated from broader issues, including social inequities, economics and politics. Indeed, it is among these variables that the deeper and enduring sources of the conflicts can be located.

Conflict also occurs where water is comparatively abundant. However, the source of these conflicts is identifiable in the longer history of resource capture and protection by the government, commercial and conservation interests. As the case study has shown, in the Awash River Basin the establishment of both the irrigation schemes and the Awash National Park has meant that customary users of land and resources, primarily pastoralists, were marginalised and forced to move into one anothers' territories. As a result, conflict to access and control resources has ensued.

Conflict involving land and resources is likely to increase unless the root sources are recognised and addressed. Although Ethiopia is now engaged in negotiations at an international level over the allocation and use of Nile waters, the country needs to prioritise negotiations to resolve land and natural resource conflicts at the regional and local levels as well. To date, investment in such negotiations and other conflict prevention and resolution mechanisms has been minimal. There is little evidence that the true sources of conflict, which include ecological factors to some degree, are being assessed and incorporated. Though traditional mechanisms have existed, these are under increasing pressure and there is a risk that their potentially positive input has been lost. It is vital that the issues explored above are addressed if the predicted future water wars are to be prevented.

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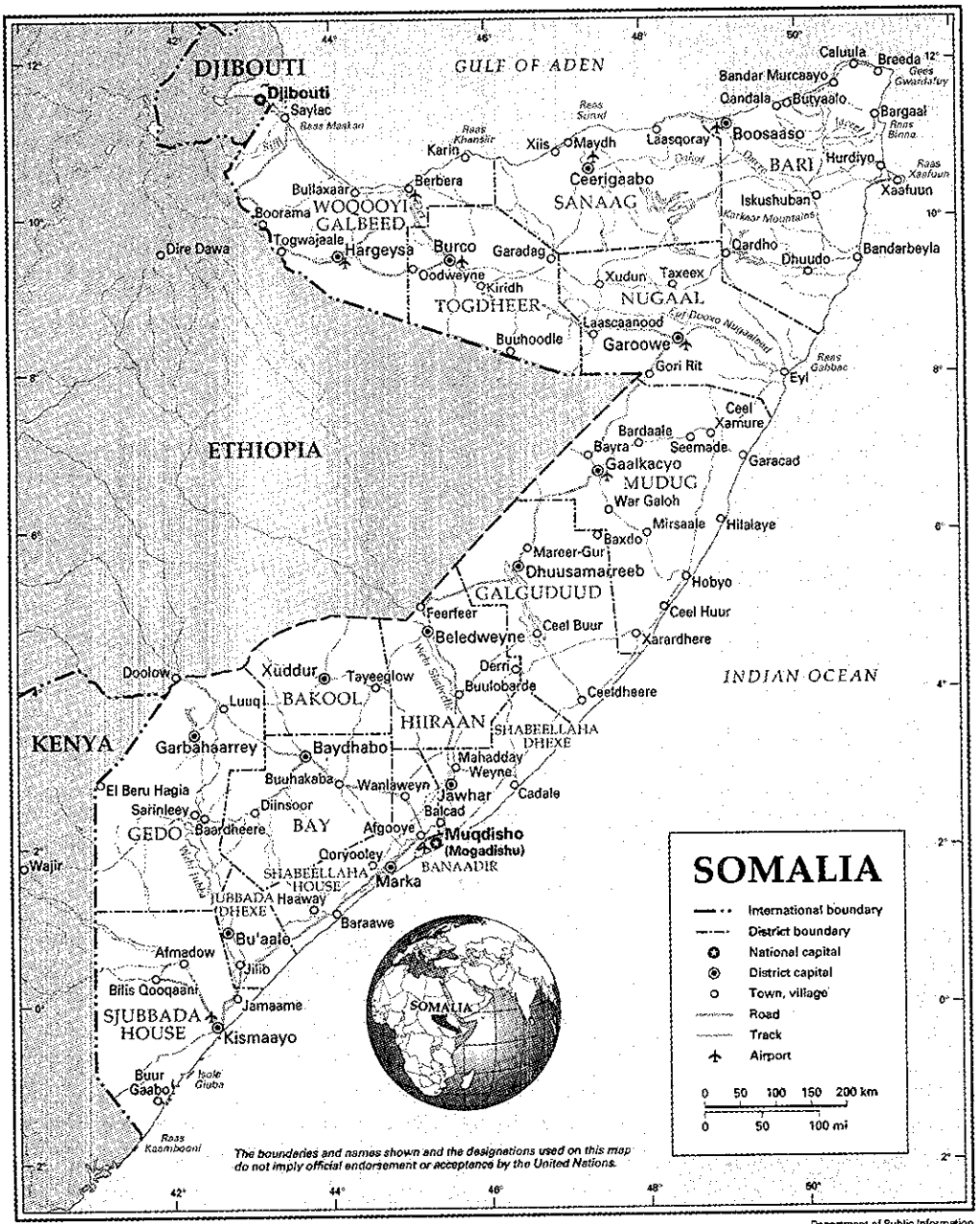

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Chapter Seven

Deegaan, Politics and War in Somalia

Ibrahim Farah, Abdirashid Hussein and Jeremy Lind

Introduction

There are two important reasons to assess the ecological sources of conflict in Somalia. First, out of the 40 years that Somalia has been independent, the country has experienced over ten years of civil war beginning in 1991. During this time there were numerous peace and reconciliation efforts, none of which have taken root. Changes in government, furthermore, have not helped to further peace building and national reconciliation.

Second, local and international peace efforts have not considered the environmental and ecological factors of the Somali conflict. Given the importance of land and resources to the livelihood of most Somali, as well as the relative power of different ruling groups, it is essential that the role of ecology in the onset and duration of conflict be evaluated. Doing so may uncover relevant tools and techniques to manage the Somali conflict and prevent further turmoil.

This chapter shows that *deegaan*, or a land base and its resources, is significant to understand the conflict in Somalia. The Somali conflict involves many clans and sub-clans. Shifting alliances were formed between different clans and sub-clans to gain leverage in the conflict and to stake stronger claims to particular *deegaan*. In particular, the ecological conditions of the Jubbaland region in southern Somalia are rich compared with the rest of the country, and provide a major source of income and sustenance to Somalis. Thus, control of these resources is a major source of the conflict in Jubbaland, as this study shows.

Background to the Conflict

Somalia is located in the Horn of Africa bordering the Gulf of Aden and the Indian Ocean. Its population, estimated to be between 9 and 12 million people, shares a common language (Somali), religion (Sunni Muslim), and the same ethnic origin (the Somali tribe). The majority (estimated at 65%) of the population adheres to a primarily pastoral nomadic tradition.[1] The country is currently embroiled in civil war, which broke out in early 1991 after the

former Somali president Mohammed Siad Barre was ousted by armed Somali rebel groups.

The sources of the overall conflict are structural and predate the current civil war. A central factor of instability is the cumulative impact of armed conflicts in Somalia. War existed in the Horn of Africa throughout the last century. Between 1900–1920, Italy and Britain fought against Sayyid Mohammed Abdulle Hassan, the Dervish or Mad Mullah. In the 1920s to 1930s Somalis fought Italian fascist rule. During the Second World War, Italy and Britain themselves fought over Somalia. During the 1960s and 1970s Somalia fought border disputes with Kenya over the northern frontier district in 1963, and with Ethiopia over Ogaden in 1977–78. Other factors include political and administrative inefficiencies, corruption, and nepotism practised by both the former Somali governments and the earlier colonialists. Cold War competition between the United States and former Soviet Union also contributed greatly to the conflict.

A number of peace and reconciliation efforts have been carried out by the international community, including interventions led by the United Nations (UN), the European Commission (EC), and the Djibouti government. Yet none has taken root. By the eleventh year of the Somali civil war (2001) the conflict had escalated into a regional conflict with different warring groups receiving support from different countries including Ethiopia, Eritrea, Egypt, Kenya and Djibouti, each with its own interests and concerns. External engagement in the Somalia conflict by regional governments will be explored later in this chapter.

Historical Context

Historical claims to land and resources by different Somali clans play an important and sometimes powerful role in current political debates in Somalia. While interpretation of Somali history is itself a contentious political issue, it is important to trace some of the key historical themes and events that shape contemporary Somalia.

Somalia has a long history of migration, conquest and assimilation, a pattern that was accelerated by the 1991–92 civil war.[2] Before Somali pastoralists migrated into the eastern Horn and the inter-riverine regions of southern Somalia from southern Ethiopia in the 10th century, the Somali interior was inhabited by Oromos, an agro-pastoral group in neighbouring Kenya and Ethiopia, as well as by other pastoral tribes and other hunter-gatherer groups. Predominately fishing peoples such as Brawanese and Swahili settled the southern coasts, including trading centrer such as Kismayu. Agro-pastoralists settled in the inter-riverine regions. Most areas beyond the coast and inter-riverine areas were inhabited by interacting groups of nomadic pastoralists. The harsh environmental conditions prevailing throughout southern Somalia

meant that pastoralists had to migrate in search of sufficient resources to support grazing livestock. Nomadic pastoralism remains the prevailing mode of production for most Somalis today.[3]

In the 19th century, clans from Somalia's central and northern regions crossed the Jubba River and migrated throughout south-western Somalia all the way to the Tana River in Kenya. At the same time, Somali pastoralists along the Benadir coast imported slaves from East Africa to provide labour for a rising slave-based grain export economy along the Lower Shabelle River.[4] The Bantu people known as *Jareer* in Somalia are the descendents of these imported slaves. Migration served to scatter clans across large areas of the physical environment. For example, the Ogaden clan is found throughout the present-day Ogaden region of Ethiopia, southern Somalia, and north-eastern province in Kenya. Migration also enabled Somalis to establish a dominant presence throughout the region, which has been reinforced over time by the strong lineage identity of most Somalis.

Pre-colonial Somalia was by and large a stateless society. Although some parts of Somalia did at different points in history sustain Sultanates or quasi-state polities,[5] in most areas of Somalia, customary law or *Xeer* was used to manage relations within and among Somali communities. *Xeer* approximates a body of social conventions and contracts, and vests decentralised political authority in community elders and clan leaders. *Xeer* is an institution to mediate social and political arrangements in present-day Somalia, where anarchy and state collapse continue. It is one of the few systems of conflict prevention and management that survives to the present day. One other is *diya*, or the customary blood compensation system that derives from Islamic *Sharia* law and customary *xeer*. Compensation under *diya* was negotiated between the aggrieved clan and members of the group that committed the crime. Generally, *xeer* and the *diya* helped to prevent not only communal conflicts and crime, but also served to contain lawlessness in pre-colonial Somalia.

Colonialism in this eastern part of the Horn had significant political and administrative repercussions for Somalia. The scramble for Africa in the late 19th century split Somalia and the Somali peoples into five different polities: southern Somalia, administered by Italy; northern Somalia or Somaliland Protectorate administered by Britain: the Northern Frontier District of Kenya also administered by Britain; Ogaden administered by Ethiopia, and Djibouti (France). They were later parcelled into four different countries including Djibouti, Ethiopia (Ogaden), Kenya (Northern Frontier District) and Somalia (north-west and south).[6] This was done as part of an agreement reached between colonial powers during the First World War. Several attempts were made following the Second World War to consider uniting the Somali inhabited portions of the different countries into a united Somalia, but to no avail.[7]

Colonialists introduced the state system to Somali peoples. The system of statehood fuelled Somali nationalism and fostered Somalia's integration

into both the regional and global economy, especially through the expansion of export-oriented plantation agriculture.[8] The state system favoured by the European colonialists and their Ethiopian counterpart enabled them to tax, conscript a labour force and to exploit the resources lying in areas inhabited by Somali clans. Many scholars argue that since Somalis were predominately a pastoral society they were less able to adapt to a central state system.[9]

Colonialism also introduced agrarian and urban lifestyles to the Somali people that were substantially different from their traditional nomadic pastoral background. Although historically agricultural commodities from Ethiopia and Somalia were exported from Somali ports,[10] Somalia was integrated into the regional and global economy through the development of an irrigated plantation economy based initially on cotton and later on bananas in the Lower Shabelle and Lower Jubba areas.

The other significant change that colonialism brought to Somalia was the rapid growth of urban centres such as Mogadishu in the south and Hargeisa in the north. Mogadishu, Hargeisa, Kismayu and Baidoa served as centres of political life for politicians and business people who had an interest in politics to safeguard their businesses and wealth. These towns provided opportunities to generate and accumulate wealth. They also altered the mandate of leadership from regulating kin relationships, and entitlements to resources such as water, pasture and the like to regulating access to the political, economic and social benefits of the state.[11]

Somalia has experienced three distinct political periods during its four decades of independence. The first was the period of multiparty democracy and civilian rule from 1960–1969. On 1 July 1960, Somalia was granted independence and merged with the former British Protectorate by agreement with the UN Trusteeship Council. The first Somali president, Aden Abdulle Osman, 'Aden Adde', was elected during this period. His former prime minister, Abdirashid Ali Sharma'arke, defeated him in 1967. Two years later President Abdirashid was assassinated by one of his bodyguards. This period was one that some Somalis recall as a golden period, while others characterise it as a time of corrosive and paralysing clannism.

The second period was a time of militarisation and scientific socialism. From 1969–1990 Somalia was led by President Mohammed Siad Barre who attained power through a bloodless coup on 21 October 1969. This period of military rule can also be divided into several distinct periods. The first was the initial period of military rule and scientific socialism in the early 1970s, remembered by many Somalis as a time of real social and developmental progress and as evidence that clannism could be overcome by mobilising nationalist sentiments. The scientific socialism ideology was based on a combination of ideas borrowed from the Islamic *Sharia* law, the Somali customary law and communism. This was followed by a period of militarisation

and irredentism, joined with the scientific socialism that was more Siyadism than socialism.[12] Lewis argues that Lenin, Mao Tse-Tung and the peripatetic Kim Il Sung (to say nothing of Mussolini) all had some influence on the homespun philosophy of development and power constructed in this final phase of the Siad regime.

Barre's militarist expansion of the late 1970s and early 1980s helped to foster a more nationalist political environment and helped to revive the irredentist feelings of some Somali leaders. Barre's Somalia first supported Ogaden freedom fighters with both men and military equipment and then invaded Ogaden itself. The support of Somali rebel fighters in neighbouring countries was the policy of the former Somali governments. To them the creation of a greater Somali union was viewed not as an act of colonialism, expansionism or annexation, but rather as a positive contribution to peace and unity in the region. However, the use of force by Barre served to engender enmity between Somalia and its neighbours. As a result of this, Ethiopia and Somalia went to war over Ogaden, and Kenya and Ethiopia entered into a mutual defence pact to prevent Somalia from becoming a regional power and thus destabilising the subregion.

Then, both Barre of Somalia and Mengistu of Ethiopia began arming dissident factions of the other's country until each fell from power as a result of externally supported armed groups. Barre fell from power in January 1991, with Mengistu following in May. The third period of Somalia's post-colonial history is the collapse of the state and civil war.

The fall of Barre dampened prospects for peace and security and did not bring about an anticipated coalition government formed by dissident factions. These factions instead turned the whole country into fiefdoms run by marauding militias answerable to their respective warlords only. Many people hold Barre and his supporters responsible for instigating Darod-Hawiye animosity in an attempt to divide the opposition not only during his final years in power but also during his attempt to regain power. Others hold the faction leaders, mainly Ali Mahdi and General Aideed, responsible owing to their massive manhunt against the Darod clan members in Mogadishu and other places they controlled.

Despite the fact that the anarchy following the collapse of the Barre regime affected the entire country, the minority groups, mainly the Bantus, Brawas and the Rer Hamar from the coastal areas, were the hardest hit. The war, coupled with the 1992 famine, greatly affected infrastructure in the pasture and the agricultural heartland, mainly the Bay and Bakol regions in southern Somalia. Like most other famines, the Somali famine of 1991–2 was highly selective, primarily striking two groups: the inhabitants of the riverine areas and those displaced by the fighting.[13] Coupled with hunger caused by looting by the factional militias, the famine of 1992 hit many parts of Somalia hard.

Key Actors

All of the main Somali clans are involved in the Somali conflict. The Hawiye, Darod, Isaq, Dir, Rahanweyn and others including almost all the minority groups are involved. Each clan has its own faction or is part of a coalition of factions. Some groups have dominated the others, forcing the oppressed to look for and use any other means it can to survive in lawless Somalia, thus making each and every clan an actor in the conflict.

The Jubbaland conflict involves almost all the Somali clans, since each and every Somali clan claims at least at partial ownership of Kismayu or the Lower Jubba region. Kismayu is the capital city of the Lower Jubba region, which itself consists of five main districts: Kismayu, Jamama, Afmadou, Badhadhe and Hagar. Historically the Ogaden and Marehan clans took over Kismayu from the Galla tribe (a mixture of Borana/Oromo and Wardey). The traditional Ogaden elders claim they captured Kismayu from the Galla tribe with the help of their Marehan counterparts, while the traditional Marehan elders claim they were the first who crossed the Jubba River and who captured the region from the Galla. The Majerten clan elders argue that the Harti clan lived in the region for more than a century making the Lower Jubba region and Kismayu in particular a place to which each and every Somali clan claims at least a partial ownership.

Other clans in the area are the Harti sub-clan of the Dulbahante, the Bartire of Absame, and a group of other minority sub-clans mainly from the Hawiye clan: Doqondide, Shekhal, and Galjecel. In Kismayu there are many other Hawiye clans such as the Habar Gidir and Hawadle, and non-Somalis like Bajunis, Brawas, Arabs and Swahilis who all claim that the town has been captured from them.

Although the current conflict is political rather than environmental, control of *deegaan* is central to the onset and continuation of conflict in Jubbaland and Somalia more widely. The current political conflict is between the Jubbaland Alliance, led by the Marehan Somali National Front (SNF), and General Mohammed Said Hersi Morgan's Harti Somali Patriotic Movement (SPM), presently exiled in Baidoa. The SNF-led coalition and the SPM forces are allied with the Transitional National Government (TNG) and the Ethiopian-backed Somali Reconciliation and Restoration Council (SRRC) respectively. The Ogaden clan, which both the Marehan and the Harti clans recognise for their prominent role in the Kismayu and Jubbaland politics and *deegaan*, is also divided between the different factions. Some of their prominent leaders are working with General Morgan while others are allied with the Jubbaland Alliance. Politics aside, the issue of the *deegaan* and the control of Kismayu and the surrounding region is at the core of the conflict.

A number of external actors are also engaged in the Somali conflict of which Ethiopia's involvement is crucial. The government of Ethiopia has facilitated

several peace and reconciliation efforts held in Addis Ababa under the auspices of the United Nations, the Organization of African Unity (OAU) and the Inter-Governmental Authority on Development (IGAD). It has also intervened militarily in Somalia by capturing three main districts in the Gedo region. Ethiopia's interest is to promote a decentralised state system in Somalia that will have less influence and power in the Horn of Africa region, reflected in the good relations between Ethiopia and Somaliland and to find alternative access to the sea following the secession and war with Eritrea.[14] Egypt's interest is a centralised state system that can be controlled and that is capable of increasing tensions on Somalia's border with Ethiopia.[15] Doing so would occupy the government of Ethiopia and divert its attention and resources from the development of Nile waters. Egypt has realigned with the government of Sudan in competition over access to and control over Nile waters. Both countries have the support of their respective regional organisations. In addition, the Arab League supports Egypt while the Ethiopian government has the support of IGAD.

The Ethiopian-Eritrean war complicated the competition between Egypt and Ethiopia over Somalia. Proxy wars between Ethiopia and Eritrea were fought inside Somalia. Eritrea was accused of supporting factions in Somalia fighting against Ethiopian-backed groups in Somalia. Libya and Sudan support the Mogadishu-based factions, Aideed in particular, purely for their anti-United States policy while Yemen hosts a large number of Somali refugees and maintains strong commercial ties with Somalia.

Kenya's interest lies in the *qat* trade and its need to contain lawlessness on its border with Somalia. The Somali refugee burden is another issue motivating Kenya's concern for political developments in Somalia. It is quite clear that key Somali players, the new breed in Somali politics, are manipulating differences between external actors.

Peace and Reconciliation Initiatives

The UN, the EC and the Djibouti government have facilitated a number of peace and reconciliation efforts. Although they have failed to take root, some of them have had positive impacts. The UN tried official diplomacy by targetting the direct warring groups, mainly the warlords, while the EC and the Djibouti government tried unofficial diplomacy by targetting members of the civil society. None of these initiatives have considered the importance of land issues or the relationship between *deegaan* and political strength.

The United Nations in Somalia

With the assistance of the Ethiopian government, the UN facilitated itself in two peace and reconciliation efforts in Addis Ababa in January and March

1991. Fifteen factions attended the two national reconciliation conferences and produced the Addis Ababa Accords. The Accords were never implemented, however, owing in part to the focus on the warlords (whom many Somalis considered criminals) and the political aspects of the Somali conflict.[16]

In late 1992, following intense media coverage, the United States decided to join ongoing international efforts in Somalia, and to lead what it termed "an international humanitarian intervention" in Somalia. They came under the name Unified Task Force (UNITAF), later code named United Nations Operation in Somalia (UNOSOM), when the nominal command was transferred from the United States to the United Nations. Their intent was to stop the factional fighting and to end the famine. The UNOSOM intervention force was created on the basis of Security Council Resolution 751 and was mandated to undertake a peacekeeping mission with the consent of the Somali factions.

Later, the United Nations was drawn into an armed conflict with General Aideed, a powerful warlord in Mogadishu at the time. The conflict became one between the UN-led international forces and General Aideed's United Somali Congress (USC) forces, and eventually led to the loss of 24 Pakistani and 18 United States troops, as well as thousands of Somalis, both Aideed's militiamen and civilians. Following these losses the United States announced a phased withdrawal, with most western forces in the UN following suit. UNOSOM completely withdrew from Somalia in March 1995 with neither a national peace nor a revived government structure in place.

The European Commission in Somalia

In addition to the UN initiatives for Somalia, the European Commission was pursuing its own approach for peace and reconciliation. The EC commissioned the London School of Economics and Political Science in 1995 to conduct a comparative study to assess the implications of various types of political and administrative decentralisation in Somalia, and to avail this information to both the general public and leading Somali intellectuals and decision makers.[17]

The report, *Study of decentralization structure for Somalia: A menu of options*, focused on four models: (1) confederation, (2) federation, (3) a decentralised unitary state, and (4) a community-based type of power sharing known as consociation. The EC sponsored two seminars each in Naivasha and Nakuru, Kenya in June and November 1996 to discuss the studies' findings. Somali traditional and religious leaders, intellectuals, professionals, women and other representatives of the Somali civil society attended the seminars, and supported the concept of establishing "a decentralized state with constitutional guarantees for the full autonomy of the constituent units".

In addition to the seminars held in Kenya, three follow-up seminars were held in Somalia. Aside from establishing the 'Puntland' regional government

in north-eastern Somalia, Somali sentiment and the nature and extent of the civil war remained unchanged. The limited effectiveness of the EC initiative was probably due to the fact that it focused on constitutional debates, rather than on conflict management, and did not include the grass-roots people or the warring factions.

The Djibouti Initiative

President Gelle of Djibouti initiated a long-awaited peace process in September 1999 when he appealed to Somali leaders and the Inter-Governmental Authority on Development (IGAD) member states to join him in addressing Somalia's situation. The Djibouti president hosted a preliminary conference in Djibouti with over 60 intellectuals to discuss how best to approach the reconciliation process. He focused on the civil society, the traditional clan leaders, community elders and prominent political figures from past Somali governments, and also asked IGAD member states to provide him the necessary support and back up for the peace process.

The peace process began during May 2000 in Arta, Djibouti with delegations from all corners of Somalia. The discussions continued for over four months and concluded with the election of a transitional National Assembly (TNA) of 244 members, an interim president, Abdiqassim Salad Hassan and a Transitional National Government (TNG) led by interim prime minister, Ali Khalif Gallayr. The first interim government for Somalia for more than a decade moved to Mogadishu in September 2000 and was overwhelmingly received by Mogadishu residents, although its de facto authority was soon to be restricted to the environs of Mogadishu.

A number of faction leaders have subsequently resisted the TNG and formed a coalition of opposition groups with a rotating chairmanship called the Somali Reconciliation and Restoration Council (SRRC). The interim government continues to meet resistance because the opposition groups believe that labelling warlords as criminals and sidelining them prevented them from participating in and contributing to the peace process. Like the EC initiative, the Djibouti Initiative delegates focused on institutional and constitutional solutions to the conflict, instead of reconciliation.

As the security and humanitarian situation continued to deteriorate, IGAD member states established a technical committee consisting of representatives from the front-line states of Djibouti, Kenya and Ethiopia. The mandate includes monitoring the Somali peace process and drawing up the terms of reference for the resumption of broad based talks to look at the completion and implementation of the Arta agreement against a backdrop of public expressions of disappointment by Hassan at the lack of support from the international community for the rehabilitation of Somalia as well as the poor progress with the internal political process, stating that "external interference" in the country's

internal affairs, the supply of arms to the warlords and the lack of support from the international community were "the main hurdles standing in the way of progress".[18] On the eve of the resumption of talks during September 2002 in Eldoret, Western Kenya, the EU offered financial and technical support to a "provisional, all-inclusive, broad-based" government in Somalia, as successor to the TNG. In order to encourage a "bottom-up approach", the EU would support "emerging regional governance" which had effective control of population centres and economic infrastructures, and demonstrated a commitment to peace.[19]

The Republic of Somaliland

Although the recent conflict affected most parts of Somalia, parts of central and all of northern Somalia were spared from open, violent conflict. In the north-east, a brief episode of armed conflict between the Somali Salvation Democratic Front (SSDF) and the Al-Ittihad Islamic Group resulted from "the region's isolation, its clan homogeneity and the strength of its traditional leaders".[20]

There are positive political developments in the north-west region of Somalia. Hargeisa declared independence from the southern part of Somalia in May 1991 and elected as its first president the chairman, at that time, of the Somali National Movement (SNM). Intra-Isaq fighting broke out in 1991. In May 1993 an assembly of elders established peace and elected Mohammed Ibrahim Egal, a former Somali premier, as the second president. Since then the Republic of Somaliland has been rebuilding its capacity with a new administration and striving for international recognition, although conflict has returned to this troubled region.

Until his untimely death from complications arising from bowel surgery, Egal's administration made advances in extending its authority and control in much of north-western Somalia except for border disputes with Puntland over the Sol and Sanag regions and the district of Buhodle in the Togdher region. Somaliland also recently held a vote of referendum supporting its intent to secede from the former Democratic Republic of Somalia, with government officials claiming over 97% of the vote supported such an action.

Within hours of the Egal's death, Vice-President Dahir Riyale Kahin, from the Samaroon tribe in the west was sworn in as president. Elections are scheduled at presidential, national and municipal level towards the end of 2002.

Civil Society Initiatives and Alternative Strategies

There are no formal governmental policies at this time because the formal state has collapsed. Nomadic communities use *xeer* to negotiate access to and use of resources in the absence of government policy.

Various local and international Non-Governmental Organisations (NGOs) and Community-based Organisations (CBOs) are implementing environmental projects, but donors have recently begun requiring NGOs to conduct environmental impact assessments for any project proposed in Somalia. Very few NGOs are involved in awareness-raising projects, or promote more equitable and non-violent ways of sharing natural resources. Access to and ownership of land remains a very sensitive issue and NGOs, whether local or international, face difficulty openly discussing land issues since no real grass-roots peace and reconciliation process has been established.

A conference held in Kismayu in early 1993 during the UN operation in Somalia convened elders and politicians from the Lower Jubba region. They agreed on a ceasefire, disarmament, reopening of roads, reunifications of the people and communities and to return looted properties.[21] These agreements were memorialised on 6 August 1993 with the signing of the Jubbaland Peace Agreement.

The communities in the Gedo and Bay regions of Somalia organised and held another important conference in early 1994. Representatives of the Somali National Front (SNF), the Somali Democratic Movement (SDM) and a large number of community elders, clan leaders, and intellectuals from both regions attended. The purpose of the conference was to reconcile the warring factions, the SNF and the SDM, and to unite the peoples of the two communities. The conference endorsed the Bardera Agreement, which included General Morgan's Somali Patriotic Movement (SPM). It has allowed the peaceful interaction of the communities of Gedo, Bay, Bakol, the Middle and Lower Jubba regions.

Overview of the Environment

The decade-long civil war has resulted in a breakdown of policy and law governing the access to, use of and ownership of land and resources in Somalia. Some NGOs are presently carrying out environmental awareness programmes, but are giving little attention to issues such as rights and ownership that underlie violent conflict. In addition, Somalia remains heavily dependent on relief and development assistance. Because of the absence of a central government in Somalia, the centrality and importance of environmental issues remain a problem.

Physical Environment

Somalia is located in the eastern part of the Horn of Africa and covers a total land area of 637 540 square kilometres.[22] Its semi-arid climate favours pastoral nomadism. Water scarcity readily provokes communal conflict over

water points in most parts of the country, as nomads rely primarily on wells rather than on surface water catchments. Rainfall is unpredictable and often comes in heavy downpours, leading to recurrent periods of drought and flooding.[23]

Somalia borders the Gulf of Aden to the north and the Indian Ocean to the east and south. Hugging the tip of the Horn of Africa, Somalia borders Ethiopia to the west, Kenya to the south-west and Djibouti to the north-west. The country has a long coastline extending for 3 025 kilometres, but has few natural harbours. A sandy coastal plain straddles the Gulf of Aden in the north. A series of mountains ranging in elevation between 915 and 2 135 metres dominate the northern part of the country. To the south, the interior consists of a rugged plateau. A wide coastal plain bordering the Indian Ocean dominates the landscape in the south of the country. Somalia has two major rivers, the Jubba and Shabelle, which cross the southern plateau and the south central region of the country. Both rivers originate in the Ethiopian highlands.[24] There are also two major streams in the north, the Nugal and Darroor.

The climate of Somalia ranges from tropical to subtropical and from arid to semi-arid. Temperatures usually average 28°C (82°F), but may be as low as 0°C (32°F) in the mountain areas and as high as 47°C (116°F) along the coast. The monsoon winds coincide with a dry season lasting from March to May. Somalia is entirely situated within the arid and semi-arid zones and has a rainfall varying from a maximum of 600 to 700 millimetres in the south and less than 100 millimetres on the northern coastal plains.[25] The average rainfall is only 280 millimetres. There are two wet seasons, both of which bring erratic rainfall, lasting from April to June and October to December.

Vegetation in Somalia consists chiefly of coarse grass and stunted thorn and acacia trees. Aromatic flora, including frankincense and myrrh, are indigenous to the mountain slopes. Eucalyptus, euphorbia, and mahogany trees are found in southern Somalia. Wildlife, including crocodiles, elephants, giraffes, leopards, lions, zebras, and many poisonous snakes, is abundant in Somalia.[26]

Resources and Uses

Natural resources form the basis of rural livelihoods in Somalia, as elsewhere in sub-Saharan Africa.[27] Examples include water for domestic use, watering livestock, and for irrigation; pasture for grazing livestock; medicinal and edible plants; fish, and trees for fuel wood and building timber. Pastoralism is the principal land use in Somalia. Accuracy of aggregate data on livestock is dubious at best. Nonetheless, in 1999 it was estimated that Somalia had 19.7 million goats, 13.2 million sheep, 4.8 million cattle and over 6.6 million camels.[28] Distribution of herds is variable. Somalia's chief export is livestock and this makes land for livestock grazing critical to the sustainability of pas-

toralist systems and livestock exports. *Deegaan* is fundamental, therefore, to the viability of customary nomadic grazing systems.

However, although livestock remains Somalia's chief export, a combination of factors restrict livestock production in Somalia, including infrastructural bottlenecks, the multitude of brokers, absence of price regulation or quality control policies, dependence on the export market, as well as a recent livestock ban on the import of Horn of Africa livestock. The ban on the import of Horn of Africa livestock was imposed by Saudi Arabia and by some Gulf countries over suspicion of Rift Valley fever in 2000. Pastoralists in northern Somalia are particularly affected by the ban.[29] The value of their livestock has fallen while upkeep costs have increased. Underprivileged pastoralists with few livestock assets and low cereal stocks are the worst affected group. Agro-pastoralists are better off. While suspicion of Rift Valley fever in Somali livestock is the major cause of the ban, leaders of the Republic of Somaliland in the north-west and the regional Puntland state of Somalia in the north-east believe that Gulf states imposed the ban as an economic sanction and to support the Transitional National Government (TNG) in Mogadishu. Regionally, the disease has led to losses estimated at between US$ 200 million to US$ 400 million with Somalia being the worst affected.[30]

Rain-fed and irrigated agriculture is practised in southern Somalia. The principal crops are cereal grains including maize and sorghum, and fruits including bananas and sugarcane. Most of the agricultural crops showed a significant improvement from yields in the early 1990s when agricultural activity was severely curtailed as a result of drought and the breakdown of the Somali state in 1991. The plantation economy also remains underdeveloped. Bananas are Somalia's principal cash crop and second most important export after livestock. Production, generally as rain-fed farming, takes place in 11 of the 18 regions of the country. The Middle and Lower Shabelle regions as well as the Lower Jubba region have a special status within this group as they are the only zones where irrigated agriculture is practised and as such are classified as 'typical surplus areas'.[31]

Crop production is suffering from a scarcity of agricultural inputs, lack of extension services, shortage of funds and poor access to small-scale or large-scale credit schemes, all of which result in a low agricultural yield and poor land use. The domestic grain supply is supplemented by international food aid. The United States Agency for International Development (USAID) alone provides an annual humanitarian aid package of US$ 26 million to Somalia, mostly used for emergency food aid.[32] Food insecurity is a perennial problem in many parts of Somalia. The Food Security Analysis Unit (FSAU) for Somalia warned in a 2001 report of a fragile situation that would impact over 400 000 people.[33] The report predicted that any further constraints on people's ability to cope could result in up to 50% of the population suffering a 40% food deficit in 2002.

Sufficient availability of water is a perennial environmental problem in most of Somalia, where rainfall is unpredictable and patchy. Various water sources exist in Somalia. In rangeland areas herders use wells, shallow wells, water catchments and government-built boreholes. Currently, however, very few wells or water catchments are functioning. Water scarcity is a severe problem that commonly leads to localised competition, such as between interacting pastoralist groups over access to and control of key water points. Competition for scarce water resources and the livelihood options that derive from the control of water are deeply ingrained in Somali life and culture.[34] In most parts of the country, there is a history of water scarcity. But scarcities have worsened owing to widespread destruction and looting of water supply installations and the general lack of maintenance.

A small forestry sector exists in Somalia and is dominated by production of frankincense and myrrh for export. Massive charcoal production for export continues in parts of north-west and southern Somalia as well.[35] With regard to fisheries, production was poor in the past. The sector showed modest growth during the 1980s but remained a minor economic activity for coastal people. In 1997, 15 700 metric tons of fish were caught and fishing provided for both local consumption and exports. Somalia's mineral sector makes an insignificant contribution to the overall economy (in 1998 it represented only 0.3% of GDP). There was also some production of salt using solar evaporation methods, mining of meerschaum (sepiolite) in the Galgudud area and some mining of limestone for cement in the Berbera and Bardera areas. Somalia also has some large uranium deposits in the Galgudud and Bay regions. In the Bay region, there are also large iron ore deposits. Somalia's 1986 Development Plan reported that indications of favourable oil and gas resources in the country persisted. Currently no mining is taking place in the country.

Domestic wood, charcoal and imported petroleum provide basic sources of energy in Somalia. The significant hydroelectric potential of the Jubba River remains unexploited and the four small-scale wind tribune generators no longer operate in Mogadishu. The World Bank and the United Nations Development Programme (UNDP) Hydrocarbon study carried out in 1991 indicated good potential for oil and gas deposits in northern Somalia. In view of the civil war in Somalia following the fall of Siad Barre, however, various foreign oil exploration plans were cancelled.

Exploitation of uranium is largely through open mines. Other valuable natural resources, such as iron ore, tin, gypsum, bauxite, copper and salt are largely unexploited. However, unconfirmed reports state that precious stones and other natural resources are exploited and exported outside Somalia by well-connected foreigners usually through faction leaders and under the banner of some aid agencies.

There are no overriding policies for land and natural resource management owing to the break-up of the formal Somalia state. Instead, the three different regional governments in Somalia control and manage land and natural resources differently. Throughout Somalia, land and natural resources are not managed according to a legal or policy precedent. Strategies are highly specific to local social, political and ecological contexts. Different clans and groups formulate and enforce their own, informal policies for managing natural resources. In places where there is some level of authority, a combination of *xeer*, Islamic *Sharia* law and the pre-1991 penal code are used to decide control over and specific uses of land and natural resources. In addition, there is an absence of an enabling policy environment and supportive infrastructure to promote production and to add wealth to natural resources. The absence of a policy framework to promote fair distribution and effective use of land and natural resources is manifest in a number of environmental problems.

Land

In the past, there were bundles of tenure rights to different land and resources for different individuals and groups. For example, rangelands were communally owned but individuals and families owned livestock. In pre-colonial times, traditional claims and inter-clan bargaining were used to establish land rights. A small market for land, especially in the area of plantation agriculture in southern Somalia, developed during the colonial period and into the first decade of Somalia's independence. Land was owned by individual families and inherited from one generation to the next.

Barre's government sought to block land sales and tried to let all privately owned land as concessions to powerful clan leaders and overseas investors, but in vain. The national land registration procedure was cumbersome, required a great deal of time and money for small farmers, was centralised in Mogadishu, and was easily abused and manipulated by well-connected officials and their proxies in the capital.[36] Land rights then and now remain a critical issue for minority groups. The Italians alienated large tracts of riverine farmland from peasant farmers to establish foreign-owned banana plantations. After independence, a new class of Somali entrepreneurs began acquiring land for irrigation, using their government connections and, if necessary, force, to claim land. Thousands of civil servants, politicians, merchants and army officers alienated large tracts of riverine land in the 1980s. They used provisions in the ostensibly progressive 1975 Land Reform Act to register land titles in their own names, while local smallholders were unable to navigate the complex bureaucracy or pay the bribes necessary to protect customary rights to land they inhabited and farmed.[37]

Following the fall of Barre's government, the civil war escalated competition to control land. Militia fighters and their kinsmen claimed farm lands. In

many areas, more powerful clans pushed their herds onto the farming and pasture lands of weaker groups and clans, and freely grazed livestock on their crops. Widespread alienation of land and resources from weaker clans and groups is ongoing today.

Following the break-up of the formal state in Somalia, occupation of land for political purposes aggravated existing resource scarcities felt by underprivileged peasant cultivators and pastoralists. Although confusing and complicated in explanation, occupation of land for political reasons has become a severe problem in war-torn Somalia. While some people use the occupied land for farming purposes, the majority claim land ownership for political motives. Most factions in Somalia occupy lands that are outside their areas of customary control. Political occupations of land are common throughout the Lower Shabelle region, where land rights are claimed by the Digil-Mirifle clan who are native to the Bay and Bakol regions. Another area is Jubbaland, where competing Somali clans claim ownership of specific land (or *deegaan*).

Land and resource tenure is related to other environmental problems. Structures to administer land in Africa suffer from the same weaknesses as other components of the state. They are often highly centralised and attempt to reach and implement decisions in a top-down manner, yet are ineffective in practice because of resource constraints, corruption and 'capture' by private interest groups.[38] In the case of Somalia, the absence of land use policies causes uncertainty and conflict among various user groups, including pastoralists, agro-pastoralists and farmers. Insecure rights to access and control land and natural resources hinder development and the fair sharing of benefits. Resolution of land disputes remains a prominent challenge for the TNG, authorities of the ruling Jubbaland Alliance in southern Somalia, as well as the judiciary of any future broad-based Somali government.

Apart from the natural resources available in the area, occupation of land for political reasons is another recent and very problematic trend. These land occupations create a powerful disincentive to negotiate on the part of some clans who find themselves in possession of other lands which are not theirs, but which they hold to help bargain for a bigger share from the future national cake. In the past, pastoralists and agro-pastoralists fought over water and pasture. The civil war introduced another significant problem of land disputes in urban settings.

In Somalia, access to and control of land relates to power, to centre-periphery relationships, and to resource allocations. It centres, in other words, on politics.[39] Indeed, control of land and resources are central to politics and conflict in contemporary Somalia.[40]

Deegaan and Conflict in Jubbaland

The Jubbaland region is located in the south-western part of the Somali Republic bordering Kenya. The capital, Kismayu, lies in the south on the Indian Ocean. Jubbaland covers roughly a quarter of the total landmass of the Somali Republic. Its ecological conditions are variable and support a diverse range of flora and fauna. The Juba River cuts through Jubbaland and deposits fertile alluvial soils a few kilometres to the north of Kismayu. This region's history was marked by violent competition to control its resources by different waves of immigrants, explorers, traders, merchants and imperialists. However, these different waves had far-reaching impacts on the social, economic and political developments of Somali peoples.

The conflict in this area is complex and multifaceted, involving divergent clans, groups and issues. At the core of the conflict in the Jubbaland is ownership and control of *deegaan*. At one level, the different clans and sub-clans in conflict in Jubbaland are fighting to control *deegaan*. At another level, as the following analysis will show, this competition is part of the larger national and regional conflict to control the Somali state.

Like the greater part of the Horn of Africa, there is evidence of environmental degradation in the Jubbaland region.[41] This has influenced changes to economic activity: some groups were able to cope, while others were adversely affected and increasingly susceptible to hunger and malnutrition. Thus whereas some privileged groups are capable of adapting to increasing environmental stress, such as through transhumant movements, other underprivileged individuals and groups are less capable of adapting to changing ecological conditions. These have become increasingly dependent on kin networks and aid to sustain livelihoods. Consequently, ecological changes have accentuated existing social differences and encouraged inter-clan conflict.

Resource Geography

Jubbaland region is made up of several districts. Its largest city is Kismayu, which also serves as the main port of the southern region of Somalia. There are other towns in the interior such as Afmadu, Bardere, and Buala. Particular clans dominate specific interior areas, although other minority clans can be found. Control of these areas and the port city of Kismayu means access to resources generated through port taxation and taxation of goods brought to urban markets by traders.

Land forms the basis of material wealth in Somalia.[42] According to Kirk, "land, as a single natural resource, provides several goods and services. Its productive use often depends on complimentary resources, such as water, and people in rural areas do not exclusively make a living as pastoralists but

are instead using many of the natural resources simultaneously."[43]Productive land is very scarce in the rest of southern Somalia except along the River Shabelle, the other major river that traverses the region. Except for the areas near the Jubba River, the entire region is arid and semi-arid and sparsely populated by nomadic pastoralists of the Ogaden and the Marehan clans.

Compared to the rest of Somalia, Jubbaland region is well endowed with natural resources, including rich arable farm lands. It enjoys a reliable water supply from the Jubba River, which deposits fertile alluvial soils throughout the Jubba River valley.[44] The greater part of Somalia is arid, the availability of resources is patchy, and suffers from chronic and extreme changes in rainfall. Hence, there is a critical need to devise flexible strategies so as to cope with the changing and uncertain environment. Like pastoral areas elsewhere in Africa, the need to have large grazing areas in Jubbaland is an insurance against 'weather shocks' such as rainfall variability and other climatic uncertainties.[45]

Due to the harsh ecological conditions prevailing in southern Somalia, pastoralists and farmers have developed coping mechanisms such as transhumant migration, shifting cultivation and engaging in petty trade. Transhumance movement between different ecological zones is a key pastoralist strategy to overcome resource limitations and uncertainty.[46] Access to *deegaan* is particularly complex in a context where transhumant migrations predominate.[47] Through migrations, different resource users maximise benefits from ecological change, such as changes in rainfall or the availability of pasture.

Similarly, like pastoralist populations in Sahelian West Africa that experienced population movement towards the coast, in Somalia the population has also shifted southwards from the ecologically stressed areas in the northern regions of the country to the Jubbaland and along the coast.[48] More certain and resource-abundant conditions exist in coastal areas and in the Jubba River valley where there is sufficient rainfall to sustain agriculture and pastoralism. Rainfall averages are higher along the coast and near Kismayu where maritime winds increase rainfall amounts.[49] Such areas have higher population densities and support more diverse economic activities. For example, the Jubba River sustains a significant riverine forest that is important to regional charcoal production. Export of charcoal to the Middle East provides an important source of income for some groups and clans. Charcoal producers export charcoal in cooperation with clan and militia leaders, who defend and benefit from their involvement.[50]

Like the rest of Somalia, there are four seasons in Jubbaland. These seasons influence resource availability throughout the region.[51] For example, forage is typically only available along the river during the *Jilaal* or dry season; this situation frequently results in violent competition between farmers and pastoralists over the use of the water and forage resources along the Jubba River. Powerful sub-clans have access to the water and forage during the

Jilaal season. Farmers in the Jubbaland keep some form of livestock and hence wish to protect their crop residues for use during the *Jilaal* season. Conflict between the groups is frequent. During the *Gu* or rainy season, water and forage is available over a wider area and during this time pastoralists clash to control grazing resources in areas separating different clans.

The ecology of the Jubbaland region is highly conducive to agriculture, including areas along the river and on the coastal plain. The flood plains of the Jubba River provide very fertile soils for crop production throughout the year. Commercial plantations border the river. These plantations produce mainly bananas for export to overseas markets. The minority Habar Gedir and their Marehan supporters control the commercial plantations. These two sub-clans possess the military capacity to protect their interests in commercial farming from rival clans such as the Ogaden and their Majertein allies. The farm labourers on commercial plantations are Bantu and related groups who historically inhabited and cultivated these areas, but who are unable to defend themselves militarily from the incoming Habar Gedir sub-clans and their Marehan allies.

Peasants also cultivate small plots along the river or in areas where there is adequate rainfall to sustain cultivation. They cultivate a variety of crops, including sorghum, Indian corn, sesame, beans, squashes and manioc, as well as fruits and sugar cane. Subsistence farmers native to the Jubba River valley have experienced waves of land alienation and obstruction of customary patterns of resource use. The independent government of Somalia in the 1960s introduced purportedly modern methods of agriculture in order to produce food on a large scale. The introduction of large-scale irrigation resulted in the displacement of subsistence farmers, thus obliging them to become part of the new schemes as labourers or farm workers.

The land rights of subsistence farmers were widely alienated under the former Barre government, which attempted to irrigate these lands to produce food crops as well as increase the export of lucrative cash crops. As part of this policy, the Barre government settled pastoralists along the Jubba River. The Barre government wanted to meet national food requirements and to earn foreign currency. Jubbaland was key to meeting these strategic objectives. Thus the exploitation of Jubbaland's agricultural potential meant the imposition of new tenure rights that disadvantaged local inhabitants who were minimally consulted.

Many pastoralists were settled along the Jubba River, for example. In the process, the original landowners were displaced either physically or through the imposition of new tenure arrangements. The areas where pastoralists were settled were saturated; thus the denial of land and resource rights for some groups was inevitable.[52] It was impractical and ecologically disastrous to settle pastoralists in farming areas, because the settled pastoralists had little knowledge of farming practices. Nor were they familiar with the ecological conditions

of the riverine environment.[53] In addition to competition for the resources, there was also social friction between the communities. The pastoralists typically viewed the farmers as inferior and tried exploiting them for labour and by selling commodities at very high prices.The land and resource rights of many cultivators native to the region receded further following the fall of the Barre regime.

By and large, the areas outside the Jubba River valley and coastal plain in southern Somalia do not support cultivation. Pastoralists use rangeland areas lying beyond the river valley and coastal plain. There is a steady supply of water in Jubbaland, both from the Jubba River as well as rainfall during the two rainy seasons. Rainfall patterns and the availability of forage enable pastoralists to use rangeland areas through a transhumant system. Grazing resources including pasture and water are the common property of all sub-clans. However, semi-arid and arid areas of the Jubbaland used by pastoralists are experiencing localised degradation and growing scarcity of important grazing resources, including pasture and water, further stressing pastoralist production systems. In the past, small-scale subsistence farmers permitted pastoralists to use crop residue as forage. In exchange the herders gave products, such as milk, hides and skin to farmers and also exchanged livestock with them.[54]

Pastoralists in Jubbaland rear livestock for both the domestic market and for export. The availability of local and international markets has added value to livestock production in Jubbaland. The once lucrative livestock market in Kismayu is not operational owing to rampant insecurity and inter-sub-clan wars.[55] Small-scale pastoralists mainly supply local livestock markets, while commercial traders, specialising in fattening livestock, supply livestock for export overseas.[56] Livestock is exported to Kenya where the prices are relatively high. In the recent past, raided cattle were sold in the livestock markets of major towns or urban centres, such as Nairobi and Garissa in Kenya. Powerful Ogaden cattle traders have sponsored raids on weaker clans in Jubbaland and have repeatedly sent forays into the Bay and Bakol regions. Still Ogaden sub-clans, who levy taxes, control the routes to the markets in Kenya. Livestock hides and skins are exported to the Middle East and other countries through the port in Kismayu.

History of Settlement and Conflict

In the early 20th century, the Ogaden sub-clans settled in Jubbaland, in the process displacing the original Oromo inhabitants of the area. These Oromo communities were pushed further south across the Tana River into what would later become Kenya.[57] The Ogaden clans were in turn pushed southward by the Marehan clans who were moving southward in search of grazing land and water for their livestock. Clans migrated in search of reliable

water sources and pastures to replenish depleted herds.[58] Hence, clans such as the Ogaden and the Marehan were forced to migrate in search of resource-rich environments in order to sustain and expand their herds.[59] It is these migrations that were the genesis of the competitions between the migrating pastoralists and the farmers who were settled near to the Jubba River.[60]

Somalis who have lived in the Jubbaland region for centuries can be found along the coast and along rivers. They include Arabs, Bajunis and other groups who founded the cities all along the Somali coast. They came as traders, slaves and rulers, with the latter group having come from Arabia.[61] They engaged in trade with the Somali and Oromo groups that lived in the hinterland. However, the Bantu inhabited the region longer than any other group. Arabs and other slave traders brought the Bantu, who became settled farmers, to the area as slaves. Bantu settled along the rivers and farmed various crops for subsistence. The Italian colonialists also used them as a readily available labour supply in order to cover administration costs. The creation of large-scale Somali farms in post-independent Somalia has further alienated the Bantu and other minority farmers from their traditional lands.

Somali clans which inhabited the region since the early 20th century include the Ogaden and Biyamal clans. The Ogaden and the Biyamal clans migrated southward in the early parts of the 20th century ahead of the Abyssinian incursions and the nationalist movement of Sayyid Mohammed Abdille Hassan.[62] The Ogaden were migratory pastoralists in search of water and grazing lands for their livestock. The pastoralist Ogaden developed a reciprocal relationship of exchange with the farmers along the Jubba River. Ogaden pastoralists developed exchange mechanisms with riverine farmers in order to acquire goods that they were unable to produce in the interior areas where harsh ecological conditions prevailed. Furthermore, pastoralists used resources near to the river on the understanding that they were to be shared with the farmers.[63] This interdependence ensured the survival of the different groups, although conflict occasionally developed.[64]

Recent immigrants to the Jubbaland are those who moved to the region in the post-independence period. Past Somali governments encouraged free and unrestricted movement of pastoralists as well as traders from all clans into the region. Authorities rarely protected the rights of the local inhabitants who were by and large ignorant of their rights to access and use the resources that were allocated by the government to newer immigrants. However, since 1991, following the break-up of the central state, there have been massive migrations of people into the region seeking access and use of resources.

Conflict to control *deegaan* in Jubbaland in part results from these uncontrolled migrations that are rooted in famine, drought and conflict in the Bay and Bakol regions to the north of Jubbaland. Migrations of internally displaced populations from the Bay and Bakol regions increased the population of the Jubba River valley and aggravated resource scarcities, leading to

encroachment onto lands occupied by other farmers and agro-pastoralists. Many 'displaced' pastoralists from the north are part of powerful alliances to defend claims to land and resources and have thereby occupied land of farmers from weaker clan alliances. Displaced farmers in the Jubba River valley have either emigrated elsewhere, agreed to become *sheegad* of the pastoralists, or have competed to recapture *deegaan* lost to other clans.[65]

The nature of the conflicts has changed since colonial times from reciprocal raiding of land and resources to the use of heavy weapons to establish exclusive control over valuable land and natural resources. Indeed, the use of modern automatic weapons, whether heavy or light, has intensified the conflict between the Ogaden and the Marehan.[66] To contain disputes and conflict, the colonial government tried separating the various clans by creating buffer zones and regulating grazing blocks between them. Through these measures, the colonial government managed to contain the conflicts between the various clans over water wells and grazing lands. In these arrangements each clan had a defined zone for livestock grazing and their areas of operations.[67] During the pre-colonial and colonial eras before guns were widely available, the power of the spear determined control of *deegaan*.

Yet the nature of conflicts in Jubbaland changed during Somalia's post-independence period. This is because the independent Somalia government rarely regulated grazing zones for different clans. Instead, certain clans like the Marehan received preferential rights to grazing lands and access to government resources and technical advice. The Barre government settled large numbers of its Marehan clanspeople in the major port city of Kismayu. The Marehan then controlled not only the government, but also regulated and benefited from the trade that passed through the city. There were various attempts to settle pastoralists among the farmers along the Jubba River and in urban areas, as described earlier.

The present intense conflict in the Jubbaland dates back to the days of the Siad Barre's regime when large numbers of people were settled in the Jubbaland, displacing customary inhabitants who were in many cases forcibly removed from their farm lands and settlements. For example, the Barre government favoured the Marehan clan and to a lesser extent the Ogaden clans, but marginalised and excluded the other clans that inhabited the region. The Bantu and the Rer Goled, for instance, were not allowed to own large tracts of land and were confined to smaller acreages along the Jubba River where they survived as smallholder peasants. Lack of a known mechanism for sharing resources has worsened conflict because different sub-clans move across a wide area with no clearly marked boundaries. Since there are no clearly delineated boundary lines between sub-clans, mobility of one sub-clan into the area of another causes localised competitions over scarce resources, but which are connected to national and regional political developments.

Understanding Deegaan

Deegaan is central to the conflict in Jubbaland. To Somali, it connotes exclusive control by a group sharing similar language, identity or clan affiliation of a land area and the natural resources found there. *Deegaan* can further include an area where one lives, operates a business, and feels secure enough because of the presence of a large number of one's clansmen in the wider physical area. The nearest western concept to *deegaan* is land tenure, which according to Kirk "comprises the customary and legal rights that individuals or groups have to land, and the resulting social relationships".[68] *Deegaan* is synonymous with entitlement, security, usage and identity.[69] *Deegaan* is important to understanding the anatomy of the conflict for a number of reasons. *Deegaan* is important politically and socially: the process of acquiring *deegaan* is delicate and complex and involves continuous negotiation between different sub-clans and groups for access to specific *deegaan*. These issues will be explored later in the chapter.

However, like other regions of Somalia, conflict in Jubbaland involving *deegaan* is "embedded in larger interaction sequences".[70] Such 'interaction sequences' typically include several factors that shape the outcome of conflict or peace, including transhumant grazing, trading activities between two sub-clans and intermarriages that eventually blur group identities and claims to own particular *deegaan*.The process of claiming and defending *deegaan* causes conflict between the various clans and sub-clans. *Deegaan* is acquired by various means ranging from peaceful bargaining to actual military conquest. The process of acquiring *deegaan* more often results in conflicts between various would-be claimants of the land.

Occupancy of uninhabited land was considered a legitimate way to claim *deegaan* historically. Defence of these lands by occupants was perceived as legitimate.[71] Similarly, if a clan has inhabited a particular area for generations, like the Ogaden in Jubbaland, then their rights to ownership of land are stronger.[72] Another way of gaining access to land and resources was to become a client of a land-owning clan, or *sheegad*, while trying to enlarge claims to land and resources. Becoming *sheegad* is still a common strategy to secure land and resource rights in Somalia today, particularly among weaker clans which are unable to defend their claims and do not enter into protective alliances with stronger clans with whom they share *deegaan*.[73] Becoming *sheegad* is one way for weaker clans to access land and resources that otherwise would be lost to more powerful clans and clan alliances.

Force is also used to stake new claims to *deegaan*, as well as to protect historic claims. In Jubbaland, heavily armed and powerful groups and sub-clans have formed a number of alliances to claim *deegaan*. Some Marehan sub-clans actively sought the support of the Habar Gedir to forcefully remove the Ogaden from Kismayu and the Jubba River basin. Ogaden sub-clans, such as

the Awlyahan, meanwhile, have formed alliances with the minority Majertein clan. However, control of *deegaan* through force in some cases is insufficient to stake claims that 'stick', and effective occupancy is sometimes more important to determining effective ownership of land.[74]

Deegaan as a Source of Conflict

The conflict in Jubbaland is very complex: many groups are involved and the issues framing the conflict transform over time. However, access to and control of the pockets of productive land is at the core of the conflict in Jubbaland. Control of productive environments in the Jubba River valley is a chronic source of conflict, beginning before the arrival of Italian imperialists. The potential for land and resources in the Jubbaland to generate livelihood and political benefits motivates different groups and clans to stake claims. Political competition and the role of land and resources in these have indelibly shaped the nature of conflict in Jubbaland and Somalia more widely. Cultural attitudes toward the land and resources, furthermore, are important to understanding the conflict in Somalia. For example, in Somalia it is widely accepted that land and natural resources are gifts from God and, therefore, that no one individual or group should claim exclusive control. Cultural attitudes such as these have stoked competing claims to *deegaan*.[75] Availability of resources alone does not lead to competition and conflict.However, it is the perception of resource scarcity and the resulting claims by different groups that leads to the onset of conflict. There is a perceived scarcity of resources in Somalia that has encouraged different clans to stake claims to the rich resources in the Jubba River valley.

With the eventual collapse of the Barre government in 1991, sub-clan disputes over land and natural resources intensified. From 1991, with no central authority to distribute resources and mediate competing claims, rights to access, use and own land and resources became increasingly fragmented as competing clans asserted their claims to different land and natural resources in Jubbaland. Rights under customary tenure systems in many cases were challenged during the period following the fall of the Barre government, a situation that persists. Even today, the process of reconciling different claims is often violent. Conflict is common, although there are a few examples of peaceful resource sharing. Customary rights to control the land and its resources in this context have proved inconsequential. Instead, population displacements by invading factions and land occupations prevail. Customary rights are widely challenged by sub-clans and groups from throughout Somalia, most of whom claim their own historical rights to land and resources in Jubbaland. Instead, more powerful clans such as the Habar Gedir or the Majertein stake broad claims to land and resources in Jubbaland, although they lack customary rights by definition.

Few clans or sub-clans are able to dominate politically on their own, hence the formation of alliances between different groups. The need to garner greater political power nationally is an important driving force underlying the Marehan-Ayr alliance or the alliance between the Awlyahan and the Majertein. So is control of productive lands. Access to and control of land and resources in Jubbaland, moreover, is now determined by the relative strength of different groups and sub-clans, and the alliances formed between these to defend claims to *deegaan*. Those clans and communities that have ready access to guns and are part of more powerful clan alliances are stronger and therefore more capable of defending their claims to *deegaan*.

The ultimate aim of clan alliances, therefore, is to access key resources and to gain political leverage at the national level. Minority sub-clans, in particular, strengthen their claims to *deegaan* by allying with larger clans. The emergence of powerful warlords from minority clans in Jubbaland can be attributed to the support they get from powerful clans at the national level. This also happened during the Arta peace process that eventually led to the formation of the TNG. Some powerful warlords, such as Mohammed Said Morgan from the minority clan of the Majertein in Jubbaland, emerged owing to the connivance and support of the Awlyahan sub-clan of the Ogaden.

Alliances, however, undergo constant negotiation between different clans and sub-clans. Control of *deegaan* is subject to these negotiations, and therefore is highly tenuous. To complicate matters, different sub-clans of the same clan support different alliances, making the overall claims to *deegaan* for different majority clans, such as the Ogaden and Marehan, highly uncertain. For example, the Ogaden are divided into several opposing sub-clans such as the Mohammed Zubeir who support sub-clans belonging to the Habar Gedir, whereas the Awlyahan support the Majertein clan. Likewise the Marehan are divided into opposing factions and ally with different minority clans and sub-clans, mostly the Hawiye clan. Some sub-clans of the Marehan, for example, are supported militarily by the Ethiopian government, which has established permanent bases in the northern Gedo region to the opposition of other Marehan sub-clans, as well as other clans such as the Ogaden.

Alliances in many cases are mutually beneficial for the different clan and sub-clan partners. Powerful clans such as the Marehan, who lack direct territorial claims in Jubbaland, have forged alliances with minority clans and sub-clans native to the Jubbaland to enhance the legitimacy of their (Marehan) claims. Minority clans and sub-clans who form alliances with more powerful clans such as the Marehan are ultimately better positioned to stake stronger claims to *deegaan*. Thus political dominance and control of land and resources depend on the strength of the different clans at particular times, which may largely be a factor of the support it gains through alliances with other clans and sub-clans. The dictum that power emanates from the barrel of the gun is a true reflection of the situation in Jubbaland.

Control of land and resources, in turn, is important to maintain the social relationships that underpin the relative power of different alliances and the strength of their claims. Powerful clan and group leaders declare rules and stake land and resource claims to enhance the position of their group in terms of access to resources locally and nationally at the expense of rival clans and sub-clans.[76]Informal rule making by factional leaders is intended to secure and entrench their claims to *deegaan* and for their exclusive benefit. Indeed, more powerful pastoral sub-clans, including the Marehan and the Ogaden, have favourable access to resources throughout the year.

Deegaan and Power

The conflict to own and control *deegaan* in Jubbaland is a microcosm of conflict at the national level; it is inseparable from national level struggles to capture the state, where control of *deegaan* ensures some measure of political supremacy. According to Markakis, "'competition for resources in conditions of great scarcity and the role the state plays in controlling the allocation of such resources" are "the catalysts to endow ethnicity with the potential for political conflict".[77]Thus conflicts between central actors at the national level in Somalia to control the institutions of the state manifest themselves in inter-clan wars to control scarce land and resources in southern Somalia, as their counterparts in Kenya express themselves in ethnic clashes.[78]

Political power is the means through which access to and control of land and resources is ensured. Similarly, conflict in Jubbaland centres on control of *deegaan*, which is required to maintain political power. More powerful clans such as the Marehan and the Habar Gedir have greater access to a wider variety of land and natural resources than do less powerful clans and clan alliances. Their power emanates from a complex combination of strategy and military superiority. Indeed, both the Marehan and the Habar Gedir inherited large stocks of weapons from the Barre government and from outside the country.

Allocation of rights to access, use and own resources in Jubbaland is a function of the power of those particular clans. Power is essential to gain access to pasture and water points in the Jubbaland interior. Power is necessary to access and control vital trade routes including the port city of Kismayu where agricultural and livestock commodities are exported. Majority clans reinforce their power base by forming alliances with weaker clans with whom they share control of *deegaan*. Power is derived from a combination of interacting variables. Thus a clan that is able to mobilise its youth, its financial resources, and is able to ally with other clans is stronger than a clan that does not.

The political strength of different clans and the alliances they form rest on their capacity to claim and defend land and resources for the political benefit of their group, and is bolstered by their ability to access weapons and

arms. Powerful clans use weapons to defend their newly acquired *deegaan* and the resources therein. Weaker clans who do not have access to weapons are pushed to the periphery and denied land and resource rights. They are also marginalised because they must operate at the periphery of economic and political decision-making processes.

The desire to increase political strength at the national level is the foremost reason different clans and alliances compete to control specific *deegaan*. Through control of *deegaan*, clans and clan alliances are stronger politically and can claim greater representation in important national decision-making processes. Greater political power implies greater access to resources both at the local and national level. The Ogaden and the Marehan sub-clans have fought for supremacy in Jubbaland in the hope of becoming the 'legitimate' holder of *deegaan*. Thus the Marehan, considered by many observers to be a minority albeit powerful sub-clan, are stronger politically at the national level than are the majority Ogaden. The Marehan were able to capture greater *deegaan* in Jubbaland, which they invested in strengthening their political representation at the national level.

The Marehan have encroached into Jubbaland since the time of the Barre government, which favoured the Marehan, as it was observed earlier. During Barre's regime, the Ogaden were displaced from towns such as Bardere that were traditionally in their area of control.[79] Their sense of ownership of the Jubbaland region was slipping away from them. Therefore, the Ogaden feel obligated to defend it from their rival Marehan and other sub-clans. Unruh offers an alternative explanation. He argues that by denying outsider and weaker clans access rights to *deegaan*, clans such as the Ogaden are defending it from being overgrazed and otherwise degraded by overuse. In that sense, defence of *deegaan* can be seen as a technique to conserve key land and natural resources.[80]

Reconciliting Completing Claims to Deegaan

Internal as well as external intervention in the conflict around Jubbaland has not led to peace or stability.[81] Various international efforts led by the UN and neighbouring countries have only compounded and complicated the journey towards a peaceful coexistence of the various clans that inhabit the Jubbaland region. External intervention in the conflict focused on the leadership, primarily warlords, many of whom benefit directly from continued conflict, but did not address the role of *deegaan* in the conflict. The failure of these interventions shows the great need to integrate the various issues underlying the conflict and parties involved to adequately resolve the conflict.[82]

The various clans that inhabit the Jubbaland region have long discarded traditional mechanisms of conflict resolution though they are still applied in localised contexts where one particular sub-clan dominates.[83] Among the

Ogaden, the customary law is still applicable and is used to resolve conflict between various sub-clans though its effectiveness has been reduced. *Xeer*, or customary laws, as one study notes, "are harder to locate after prolonged conflicts that have destroyed local populations, infrastructure, and institutions".[84] Elsewhere in Somalia, the *Xeer* laws have been largely abandoned during the post-independence period. The recession of customary conflict resolution strategies was a gradual process that began in the colonial era and intensified during the post-independent period in Somalia. The traditional *Xeer* was formerly used to mediate disputes, including localised competitions over land and resources. Although competition to control *deegaan* in Jubbaland is far more complicated today than in the past, the extent to which *Xeer* could be revived and used to reconcile competing claims should be assessed.

The process of reconciling different claims to *deegaan* entails understanding the benefits that different alliances derive from particular *deegaan*, such as political representation, and ecological goods and services. There are, as already noted, different land and resource use systems in Jubbaland. Resources are used with varying degrees of intensity and the different clans rely on varying strategies to defend their use of and access to specific land and resources. The Habar Gedir and their Marehan allies would not allow sharing of Kismayu port and airport facilities with other rival clans. Likewise, sub-clans of the Ogaden such as the Awlyahan would not allow their rival sub-clans to tax them in their own towns.

The challenge, therefore, is to create a policy environment in which different clans can coexist and share access to and control of resources without violence. Nomadic herders in the hinterland where resources such as forage and water are scarce require seasonal access to resources in riverine areas in the Jubba Valley. On the other hand, farmers who hold customary rights to land by occupation require tenure security and protection from encroaching pastoralists. As elsewhere in sub-Saharan Africa, conflict in Jubbaland occurs when conflict is perceived by one or both sides to be more effective than cooperation.[85] Various clan warlords and their advisors should be incorporated in the peace process and be educated of the benefits of sharing resources.

Conclusion

This chapter set out to identify and assess the extent to which ecological factors are sources of conflict in Somalia. This is extremely challenging in view of the manifold conflicts in Somalia, as well as the extraordinarily fractured political landscape existing at this time. It does not offer an exhaustive review of ecological sources of conflict in Somalia. Rather, it examines and reflects on a narrower segment of this very complicated relationship: the relation between *deegaan*, politics and warfare.

An important part of the preceding assessment of *deegaan* and conflict in Jubbaland is how competition to control access and to own *deegaan* in Jubbaland articulates with conflict at the 'national' level in Somalia. The interplay between local competitions involving land and natural resources and national level conflict is an important area of analysis in this and other studies on the ecological sources of conflict.

It is evident that land and resources alone are not the ultimate sources of conflict in Jubbaland or Somalia. Rather, land and resources are embedded among many other interrelated factors, including conflict to control the state, engagement of third parties, including neighbouring governments, ineffectual or missing state institutions, and official policy that curried favour with minority groups through patrimonial favour, but excluded most other groups.

Land and natural resources distribution are important variables in understanding conflict in Somalia. More specifically, they are important to knowing how contractual agreements are formed between different groups. In Jubbaland, for example, alliances between minority and majority clans are important for determining access to and control of *deegaan*. Minority clans with historical claims to *deegaan* in Jubbaland ally with majority clans who lack customary rights, but who possess the power to maintain access to and control over *deegaan*. Majority clans in Somalia can bring legitimacy to their current claims by allying with minority clans. *Deegaan*, therefore, is the basis of contractual arrangements between different clans in the Jubbaland. Contractual arrangements, in turn, determine political and negotiating strength in conflict and, ultimately, the relative power of different clan alliances. *Deegaan* is important for making power in Somalia.

Owing to southern Somalia's overall resource scarcity, Jubbaland has remained volatile and unstable, with competing claims by Ogaden and Marehan clans to own *deegaan*. Jubbaland is relatively endowed with productive lands, including reliable supply of water and pasture, as well as fertile alluvial soils that can support extensive and intensive farming. The conflict in Jubbaland concerns ownership and control of *deegaan* and is inseparable from national struggles to capture the state. *Deegaan* engenders political strength, as well as livelihood security and group identity. *Deegaan* is a bargaining chip for regional and national political position and hence access to national as well as regional resources. Without claiming a particular *deegaan*, clans feel disenfranchised from national political processes. Hence, clans such as the Marehan and the Ogaden claim ownership of *deegaan* in Jubbaland for the political as well as economic well-being of their respective groups. [86]

The importance of *deegaan* to the formation and maintenance of contractual arrangements between different clans in today's Somalia mirrors the importance of land and resources more generally to the organisation of social groups in Somalia customarily. These were founded on the need for frequent and unpredictable movements between different key resource environments

to sustain livestock herds, which are the basis of pastoral livelihoods. Historically, different pastoral groups in Somalia moved in response to fluctuating resource conditions. These movements were carefully planned and tailored so as to access key resources.

A network of social relations was important to access land and natural resources over a large area, including beyond the area recognised as an individual's or group's *deegaan*. Gaining access to resources through social networks permitted livestock movements over large areas. By sharing resources, it was possible to become familiar with other social groups and to tighten the bonds constituting an individual or group social network. Land and natural resources were and remain a way to forge stronger social ties to other pastoralist groups.

The variability and uncertainty of ecological conditions in Somalia necessitated delicate arrangements for sharing resources, quick decision making, and sophisticated communication systems to share information regarding ecological conditions and animal health. Governance structures in pre-colonial Somalia were flexible, complementing the fluid organisation of social groups that were attuned to assymetric ecological dynamics. Power was substantially decentralised; individual elders represented clans and sub-clans and negotiated with other groups on a variety of issues, helping to maintain good relations between different clans, as well as formulating and upholding agreements to share land and resources. Dialogue between elders enabled herders to negotiate access to resources with individual herders and groups of herders at a local level. Through agreements brokered by elders between different clans, individual herders and small groups from different clans were able to interact regularly and peacefully, building familiarity between different clans and sub-clans. Decisions by individual herders and small groups on livestock movements cultivated better relations between different clans as well. In the long term, familiarity engendered reciprocity in access to and use of critical ecological resources.

It is clear that in the period since the imposition of the central-state model under Italian colonial rule, the rules and norms governing access to and control of land and resources have changed tremendously. There are many inherent inconsistencies between the central-state model and customary Somali social formations. For example, power and decision making were centralised under the state model imposed during colonial rule. It became extremely difficult for different clans and sub-clans to meaningfully negotiate on important matters, including resource access and control, independently of central authority and oversight. Furthermore, because power was concentrated at a central level, it was possible for elite groups to dominate the institutions of the state, thereby excluding groups not represented. Exclusivity replaced reciprocity as the guiding principle in the domain of allocating rights to access and control land and resources. In the Somalia under the central state, control of land and resources was correlated with power and control of the state. Sharing access to land and resources was not open to negotiation.

The impacts were devastating for subsistence producers. In the Jubba River valley, for example, the 'state' (both the colonial and post-independent) established large commercial agricultural plantations, displacing peasant farmers who shared access to pasture and water with mobile pastoralists. Secondary and tertiary access rights to resources, however, were eliminated once commercial plantations were established. Unable to sustain customary production systems, many peasants and pastoralists became destitute. A large pool of cheap and disempowered labour emerged to supply the colonial plantation economy. Many continued to be dependent on the state in the period following independence, even though the state was inimical to the interests of the rural poor. The only chance for security for many subsistence producers and destitute people was to gain patronage from the ruling elite.

The break-up of the central state in 1991 has led to a further transformation of rules and norms for accessing and controlling land and resources. However, political power, infinitely ordered and meticulously negotiated, still ultimately determines land and resource rights in Somalia. Strength to claim and/or maintain rights to access and control land and resources has converged around contractual agreements between different groups. As was observed in the case of Jubbaland, supremacy and control over land and resources depends on the power of different clans and sub-clans at particular times, which is largely a factor of the support clans acquire through agreements with other groups. Control of land and resources confers greater political power, which clans use to stake greater land and resource rights through political bargaining with other groups. Conflict in Somalia involving land and resources, therefore, ebbs and flows as different groups make and unmake power in a seemingly endless struggle to capture, ultimately, the greatest prize: control of the state.

For conflict managers and peace makers, it is important to recognise that there is a strong background to dialogue, negotiation, reciprocal agreement and resource sharing in Somalia. Elements persist to this day, albeit in reconstituted forms in the anarchic period following the break-up of the Somalia state in 1991. In spite of the ongoing civil war and further disintegration of the former 'state' into different political units, this process continues. As De Waal[87] observes, international intervention undermined many positive opportunities to rebuild customary political structures in Somalia following the disintegration of the state. The break-up of the central state may enable Somalis to forge a new *politik* incorporating custom. This process must be encouraged as an integral aspect of conflict management and peace building through a variety of diplomatic and policy-making channels.

The lessons emerging from this case-study for conflict managers and peace makers are many. One is that land and resources are clearly important to understanding the dynamics of conflict in Somalia. The exact extent of their importance is impossible to quantify, but land and resources play an important role

in the onset and duration of conflict in Somalia. A second lesson, and relating to the first, is that local competition to access and control land and resources articulate with national level conflict to control the state. Control of *deegaan* plays a critical role in determining political strength at the national level. Clans and clan alliances claim greater power in national level decision-making processes through control of *deegaan*. Therefore, competition between different groups at the local level to control *deegaan* are firmly linked to conflict at the national level to control the state, and thereby dominate the institutions and laws that determine the allocation of national wealth, including land and natural resources.

A third lesson is that control of land and resources plays a critical role in both the unmaking of old power and the formation of new contractual agreements and power in Somalia following the collapse of the central state. Finally, a fourth lesson is that there is a custom, incorporating dialogue, negotiation and reciprocity that can serve to constitute new policies and processes for conflict prevention and management. Examples are particularly rich in the many ways that different social groups in Somalia historically use land and resources to establish durable and reciprocal social and economic ties.

The lessons from earlier attempts to end the civil war in Somalia squarely point to the need to build peace matched to the peculiarities of the Somali context.

Proposals for new policies and legislation on land and resources can establish rules and norms that are useful in peace building and the broader construction of a new political system for Somalia. For example, equitable and fair distribution of land and natural resources is one way to peacefully reconcile competing groups.Land ownership, access to resources, and a hierarchy of first rights are ingrained in Somali society. Equity should be a guiding principle in the formation of new policies and legislation for land and resource rights, bearing in mind time of occupancy, customary rights, land use, group affiliation, gender, and age of the many competing actors and groups. A future broad-based Somali government, in consultation with local leaders, civil society representatives and the international community, should formulate new policies to redress land and resource issues, all the while seeking to promote equitable distribution and broader benefit sharing.

Any future conflict prevention and management strategy must be inclusive, incorporating all factions throughout the process of managing conflict and building peace. (This will include all factions inside Somalia, as well as their patrons in eastern Africa and the Middle East, notably Egypt, Eritrea, Ethiopia, Djibouti and Kenya.) The legitimacy of many past initiatives was undermined because only certain factions were represented, excluding (intentionally or not) other large and small factions. Despite the vested interests by many of the armed groups to prolong the conflict no group, including

women, youth or militants, should be excluded from negotiations to end conflict and promote peace.

But more than any other factor, any peace-building framework for Somalia must address the core sources of conflict, as well as those factors that prolong conflict – including the issue of land..

Customary methods deserve intensive analytical and policy consideration. These were overlooked in many past conflict prevention and management strategies for Somalia. Arguably, the failure of past conflict management and peace-building initiatives is the result of a large-scale policy emphasis on international intervention and externally imposed peace formulas. At best these failed. At worst, they were destructive to customary forms of negotiation, agreement and reconciliation.

From past experience, it is evident that Somalis themselves must guide the process of peace building and national reconciliation, drawing on both customary and modern methods. Traditional methods of conflict prevention and management including *xeer* and *diya* could serve as a solid foundation to formulate new hybrid strategies that build on the comparative strengths of customary and modern approaches.

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Chapter Eight

Where to From Here?

Richard Cornwell

While conflict is not the only cause of sub-Saharan Africa's current plight, it surely counts among the principal ones. Considerable academic debate has been conducted about the causes of war on this continent, reflected in the introductory chapter to this volume. In recent years much of this has centred upon the 'greed or grievance' debate, as if the two were necessarily opposites or lent themselves to clear analytical distinction. Chapter One can do little but leave one in doubt that we will ever be able to construct a meta-theory of conflict with a view to creating a model with predictive capacity. It seems an incredible waste of time and talent to pursue so dubious a quest at the expense of analysing conflicts actual, incipient or possible, with a view to genuinely addressing their effects on human security.

It is far more rewarding, surely, to create accessible explanatory narratives of individual conflicts. By concentrating on aspects of two conflict clusters (Central Africa and the Horn), both of which are often overlooked, the authors of the chapters in this volume have done just that, without ever making claims that the ecology of conflict has a superior explanatory value to other issues.

The preceding chapters provide us with a salutary reminder that in virtually every case the cause and course of conflict are incredibly intricate. Journalists covering conflict, even those who have a nuanced view of what they are witnessing, are constrained by space or the sound-bite to present their readers or audience with a highly simplified account of what is happening. Unfortunately it is often this abridged and attenuated narrative that finds itself absorbed into such public debate as then ensues, including that in the realms of international policymakers; hence the importance of the creation of carefully worked explanatory narratives as a guide to action.

A word of caution is in order, however, for in times of conflict, narratives may serve a number of purposes. Each reconstructs and reconfigures the past, present and future along lines favoured by the narrator, who may himself be party to the conflict he describes and analyses, or may be duped into adopting a partial position. If he is a propagandist then his narrative is intended to have an impact on the conflict favourable to the side in whose employ he is by persuading others of the truth of his perspective. Not only does he create a version of events in an effort to persuade neutral observers

of the virtue of his cause; he also provides an interpretation of the conflict that serves as an ideological underpinning for fellow partisans seeking a broader view of their assumed position. This in itself may help provoke or prolong conflict, or embed its legends deeper into the psyche of potential protagonists.

Conflict, especially violent conflict, tends to become increasingly complex with the passage of time. It is a commonplace that battle plans rarely survive unaltered beyond the first contact between opposing forces; almost the same may be said of motives and intentions. It is also worth remembering that during conflict alliances and levels of commitment within the ranks of the antagonists tend to shift. In addition individual fortunes alter, and among the leaders in particular, substitutions may be made either as a result of death or injury or political and other considerations. Thus as conflicts unfold the perspective is always liable to change either gradually, or suddenly, as in a kaleidoscope. All of these considerations make the contemporaneous analysis of conflict extremely difficult, with obvious consequences for the efforts of those engaged in trying to understand, ameliorate, mediate or end the violence.

Of course, though this often goes unremarked, such external parties may also have an interest in embracing a particular interpretation of the conflict they wish to influence. Either they have a desired outcome of their own, proclaimed neutrality and altruistic stance notwithstanding, or they adopt, sometimes unconsciously, an interpretation of the conflict concomitant with their chosen method and level of intervention or neglect.

They may also use their own interpretation of conflict to divert attention from their own involvement, direct or indirect. In particular this sort of behaviour manifests itself in an attempt to focus upon the proximate causes of the conflict to the exclusion of the structural. That non-belligerent states, or their subjects, may have had an influence in creating the conditions for armed conflict elsewhere, or in exacerbating and prolonging conflict once it has started is not an issue that 'benevolent neutrals' want drawn to public attention.

In the broadest level of analysis, and as attested in the various chapters of this book, structural violence is seldom missing as an ingredient of intrastate or interstate conflict.

The current popular debate about African security is informed by a number of unspoken assumptions. From an internal continental perspective the most important of these have to do with the role of the State in providing security to African societies and the relationship of the State to its security apparatus. Many of the normative models we apply in these discussions are drawn from the historical experience of a handful of strong, capable and effective nation states, occupying a dominant position in the global economy. To what extent is this model applicable to what we see in Africa today, especially given the continent's tenuous position on the global margins?

This is an important consideration, because it points to the need to consider Africa's position in the world as an essential part of the debate about the security of its people. A number of well-meaning governments in 'the North' have attempted to focus the security debate more sharply on issues related to violent inter-state conflict, its avoidance and amelioration. Yet this approach defines the compass of security far too narrowly to be useful in the African context or, indeed, across much of the world. In part this narrowness of vision reflects the self-interest of the traditional security sector and its related military-industrial base in reinforcing its claim to the bulk of the state budget allocated to such vital matters. But, by focussing on inter-state competition as the principal source of security threats it also diverts attention from a phenomenon long identified in the social science literature: structural violence.

Structural violence may manifest itself in a multitude of ways and at various levels of interaction. Some of these will be mentioned later, but the level at issue here is that of structural violence at the international level, which consists in the deliberate maintenance of a global system based on fundamental and self-reinforcing inequity. We know that structural violence within countries and communities, even families, may lead eventually to actual, physical, violence, yet too many people persist in the belief that structural violence on a global scale will have no such consequences. In a 'globalising world' this is all the more unsafe as an assumption, and we see a number of conflicts that, while ostensibly local, also have global linkages to essential 'external' actors. Systemic structural violence may not be a sufficient explanation for the incidence of conflict, but it seems, in its manifestation of the increasing polarization of haves and have-nots and the marginalisation of ever larger portions of mankind to be a necessary component of any comprehensive explanation of most conflicts, including those in Africa.

Those who seek to narrow the security debate to areas of traditional concern not only condemn their analysis to an ineffective shallowness, they also, sometimes unintentionally, provide an alibi for the wealthier, more influential countries, allowing them to ignore their role in perpetuating this systemic imbalance. This is a welcome escape for politicians unwilling to take the long view or to persuade their electorates that their present pain is a precondition for global peace, and that equity, and self-interest, will demand that the citizens of the wealthy countries limit their claim to the bulk of the world's resources. For Africa to gain equitable access to the global market, for instance, certainly requires that the dominant players forego some of the extremely unfair advantage they currently enjoy.

This is a point that needs emphasis in any consideration of Africa's security.

Let us move on to other matters. The economic agendas of conflicts in which the business of war merges almost imperceptibly into criminal activity of an organised or opportunistic nature, have gained increasing currency.

The question might be posed as to whether we are looking through the right end of the telescope. Is it that wars are sometimes fought, primarily or partially, for the financial and economic gain they offer? Or is it more accurate to say that war alters the environment in which economies have to continue, at all levels, and that they adjust accordingly. The political economy of disorder offers opportunities not always available in 'normal' circumstances.

A number of the contributions in this book make the point that most of the countries studied have no unambiguous laws or custom that lay down who shall enjoy access to what resources and under what conditions. The authors argue that achieving such a set of accepted and equitable rules would eliminate at least some causes of conflict. Yet it is possible that this misses the point, for although international investors may prefer transparent and predictable legal environments in which to operate, political elites may choose to leave elements of the law deliberately vague, to allow them to promote their individual advantage in circumstances of dispute. In other words, equity is seldom in the short-term advantage of those with power and wealth.

Conflict alters not only the political but also the social landscape, placing a premium upon the ability to use, or threaten the use of, lethal force. Men-at-arms find themselves catapulted up the social ladder, often regardless of their lack of peacetime skills. Is it then surprising that some seek to take advantage of their newly elevated position to secure material wealth against the time when they find themselves once more unemployed or even unemployable? In the absence of a bank account an AK-47 may substitute effectively for a cheque-book. All this, of course points to the increasingly blurred continuum from violent crime to violent conflict; indeed, there are times when the two are virtually indistinguishable and may easily coexist in time and space. It seems unlikely that those who benefit from violence, structural or physical, will easily be persuaded to abandon their positions of dominance.

This is not a counsel of despair, however, for by making plain the causal linkages, proximate and structural, the analyst may make it more difficult for those implicitly involved in harming the human condition to justify their actions, behaviour and position in benign terms. 'Globalisation', as posited by the neo-liberal consensus, may have the potential to substitute the market-state for the political state, and to replace political democracy with market democracy, but the end of history is not yet upon us, and until such time it behoves us to believe that public opinion may still be moved for the good of the commonwealth.

The chapters themselves cover two conflict clusters: Central Africa and the Horn. The study on Rwanda makes clear that although land is not the root cause of the conflict in that country, its role is critical to understanding the dynamics of the situation. Land scarcity and the issue of rural overpopulation have frequently been identified as contributing to the Rwandan conflict; what has tended to be overlooked is the unequal distribution of land, which

is a direct consequence of elites' use of the state apparatus to secure their material interests. The competition for state power, though couched in ethnic terms, which intensifies and perpetuates a situation of constant insecurity, is to a large extent a mask for a zero-sum conflict in which material stakes are at risk. As in so many conflicts in Africa and elsewhere, diasporas play a leading role in funding the antagonists on the one hand and, on the other, constitute a threat to current property rights as refugees awaiting return to their already overburdened homeland. As long as this situation persists and no policy is put in place to address unequal access to land and resources, and no effort is made to diversify the economy away from its virtually absolute dependence on rural outputs, it is difficult to see how the pattern of violence is to be interrupted.

The salience of these issues strongly suggests that the Arusha Accords of the early 1990s offered only a superficial solution to the ongoing conflict and, indeed, with its emphasis on the importance of returning the refugees, played no small role in exacerbating it, to the point that made the genocide of 1994 a possible solution in the eyes of more extreme elements. The consequences of this oversight on the part of an international community eager for 'solutions' bought as cheaply as possible have since been felt throughout much of Central Africa.

Whether, of course, elite groups, especially those currently in power, can be persuaded in a resource poor environment that it is their country's and people's best long term interests to adopt policies based on so abstract a finding is a moot point. Any member of the elite encouraging such an altruistic move would probably find himself quickly displaced by his colleagues. The predominance of short-term considerations in politics, especially in so highly charged an environment as that in Rwanda, militates against so high-minded an approach. Only with a great deal of external incentive does it seem possible that Rwanda's rulers might be persuaded to adopt the long view. Failing that they will in all probability settle for the continuing situation of neither peace nor war for as long as this is sustainable. Unfortunately, the longer this situation prevails, the harder to take the long view, as the accumulation of extremist propaganda and the distortion both of history and analysis make it ever more difficult for any party to the conflict to retrace their steps.

For all the claims of the incumbent regime that they are pursuing a policy of national reconciliation, what limits have they set themselves in terms of the sacrifices they are willing to make on behalf of their supporters, whose loyalty they must continue to nurture?

As in the case of its neighbour, Burundi presents an interesting example of a minority-based elite manipulating ethnic consciousness for its own perceived advantage. Once again there is an agreement, also signed in Arusha, in 2000, that leaves a great deal to be desired. It falls short in terms both of inclusivity and implementability and, perhaps understandably given the essential limitations of formal agreements in so fraught a situation, fails to identify certain key

elements of the structural economic imbalances and opportunities embedded in current power relations. Nevertheless, there is little evidence that those involved in the negotiation of the agreement even considered such structural imbalances, beyond recognising the need for economic diversification away from an almost total dependence upon rural production.

Some of the most significant of these considerations centre upon the need to reform the all-important coffee sector, where profits are guided upwards to local politically dominant elites and further to overseas intermediaries and multinationals in the coffee roasting and retail trade, always at the expense of the peasants whose labour is essential to production. Access to a share of these profits in Burundi is assured only by sharing in the control of the state. This is not to say, of course, that coffee lies at the heart of the conflict, but that the weak bargaining position of coffee producers, especially those in Africa, whose market share is dwindling, makes coffee-dependent countries such as Burundi extremely vulnerable to the vicissitudes of a highly volatile market in which producer prices, though not the price paid by the end consumer, trend ever lower. That this state of affairs impacts adversely upon an environment in which human security, including food security, is constantly at risk, is hardly a matter for contention.

Regional co-operation is another area in which long-term amelioration of population pressure and ecological stress might eventually be achieved. However, extensive and significant co-operation between countries whose security prospects seem virtually intractable at present will be some way off, except in the military and diplomatic fields.

The Burundian case study raises some interesting, though unwelcome, questions about the extent to which a narrowly based elite might have an interest in maintaining a war psychosis among the population at large.

Though the chapter on the Democratic Republic of Congo focusses on the exploitation of colombium tantalite (coltan) in the zones occupied by rebel forces and their sponsors, it reveals a great deal about the international dimensions of what is often assumed to be a local conflict. This third case study on the Central African conflict system demonstrates another of the overlapping circles joining the web of insecurity in the region. The work of the UN Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth in the Democratic Republic of Congo has already cast new light on the activities of foreign armies in the plundering of Congo's resources, sometimes in collusion with the authorities in Kinshasa, sometimes exploiting the absence of state control over large swathes of the national territory. It is also becoming increasingly apparent that this illicit or semi-licit exploitation depends on the co-operation of international traders and traffickers within and beyond Africa. Some of these elements in the high-technology commodity chain would be most irate to find themselves identified and labelled as accomplices or accessories in predation, yet that is what they are.

Nor does their complicity end with the ruthless and wasteful stripping of a country's natural resources. The methods involved in this desperate rush for quick profit while the essential conditions of political disorder prevail involves the use of forced labour in life-threatening conditions. It also requires the violent removal of many of the local population, contributing further to insecurity in an area already under considerable environmental stress. There is also major and probably irreparable damage being done to what was once a rich natural habitat for many rare and endangered animal and plant species.

This forceful insertion of a developmentally neglected area and its communities into global commercial networks is one of the most telling examples of what 'globalisation' may come to mean for most Africans. Whether the profits generated by this predation will prove sufficient incentive for key players to further obstruct the fragile Congolese peace process remains to be seen. Certainly those countries involved in genuinely seeking an end to Congo's protracted agony would be well-advised to realise that many of the protagonists mouthing a commitment to peace and reconciliation are identical to those reaping rich rewards from the existing, controlled, chaos.

The second conflict cluster centres on what is broadly defined as the Horn of Africa. In Sudan we encounter at least three overlapping conflicts: between north and south over the resources of oil, water and agricultural land, and between southern elements competing for the means to sustain a subsistence economy. These conflicts feed into each other as the pressure on the peoples of the south increases in an attempt by the central government to monopolise the region's natural resources. The south's ability to resist such pressure is vitiated by internal disputes which the government seeks to exploit to its military advantage and by the realisation that in modern war famine is an effective weapon. The other side of this particular coin, however, is that rebel leaders may profit inordinately from the subsequent international relief effort. Growing oil revenues also make possible Khartoum's acquisition of more advanced and destructive weaponry and the foreign advisers to use it.

The issue of water, both in the case of the Jonglei Canal project, and in the Ethiopian case study draws attention to the regional complications of the ecology of conflict. Given its historic stance on the primacy of its claims to the use of the Nile, Egypt perforce is constantly engaged in diplomatic efforts to see that its interests are not threatened, regardless of the effect this may have on the development prospects of the other states of the Nile Basin. In particular one notes here Cairo's implacable stand against the granting of independence to the southern Sudan, which blights even the remotest hope of a negotiated end to this thirty-year war.

Finally the Somali case illustrates the saliency of political power backed with armed force as key to access to land and resources in a context in which the state has all but disappeared. The intervention of other regional powers

in defence of their own perceived interests is also noted: Ethiopia determined to prevent the resurrection of a Somali state with a potentially irredentist agenda, and Eritrea willing to consider using Somalia to cause a diversion from developments in Tigray. It might be added in passing that Somalia's economy has received an even worse battering since the United States stopped the operation of certain banks alleged to be associated with Al-Qaeda. This effectively interrupted the flow of migrant remittances to Somalia, a vital link in the domestic economies of many poor Somali families. Such considerations tend, unfortunately, not to weigh too heavily in the decision-making processes of the wealthier nations.

In all six country studies we find the same observation, explicit or implicit: control of the state apparatus provides incumbent elites with access to scarce, and sometimes plentiful, resources, and the ability to decide how and to whom these shall be distributed. In other words, at the national and local level the politically dominant class determines who shall be included and who excluded. The same considerations apply in the formulation of development policy. As we can see from a number of the case studies, those who benefit from 'development projects' are seldom identical to those who bear the costs, for the latter are almost never consulted about the viability or desirability of such projects, especially when these are capital intensive. Increases in environmental stress as a consequence of 'development' is not uncommon, and this may lead to, or exacerbate existing, conflict. While conflict as an impediment to development has often been observed, the redistributive effects of development as a source of conflict are only rarely noted.

In several of the cases, notably those involving the exploitation of Congo's natural wealth and Sudan's oil, we find the close association of foreign and multinational companies and other external interests co-operating with authorities legitimate and illegitimate in the name of profit, and with little or no regard for the well-being of the local populations. Closely associated with these companies are often what can only be referred to as the 'entrepreneurs of violence'. This phenomenon is certainly not restricted to Africa, nor, indeed, to areas where violent conflict is in progress. The criminalisation of large parts of the global economy has made it incumbent upon organisations that would enter certain hazardous parts of the market to ensure that the ability to employ lethal force or the threat of it forms part of their broader portfolio. Sometimes, of course, this takes the fairly innocuous form of private security companies, but elsewhere its manifestation is rather more sinister, with the formation of private militias merging into warlord enterprises.

The unending quest of trying to understand African conflicts involves a constant movement between the general and the particular and demands the continuous questioning of established assumptions. In the light of the sheer weight of human suffering that results from these conflicts, it is difficult to remain dispassionate or detached. The awful icons captured and preserved

by today's technology, the carefully noted and catalogued statements of survivors and participants make a vast difference in perceptions held today as opposed to those of people recording and analysing war fifty years ago. Under these circumstances, what has been called "the pornography of violence" leads only too easily to the dismissive conclusion that Africa is descending into barbarism.

The temptation must be resisted to suspend critical thought and analysis by taking recourse to explanation by metaphor. Yet, this is a simple alibi for those from outside and inside Africa who continue to fuel and profit by conflict, however indirectly, and with however many cut-outs facilitating deniability. Only by continuing to gather and interpret information and by publishing what is known and can be verified will it become more difficult to prosecute conflicts that are too often characterised by the slaughter of the unarmed by the armed. The day is probably far off when war crimes tribunals and truth and reconciliation mechanisms can curb mankind's ability to inflict inhumanity. Recognising and naming the instigators, perpetrators and profiteers of individual conflicts for what they are, however, would not be a bad start.

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