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Evaluation Study No. 2

Rural Development



Photo by Ken Heyman

Rural Development:

Issues and Approaches for
Technical Co-operation

United Nations Development Programme

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FOREWORD

The main question asked in any evaluation is: "what works, how, and why?" But, there is a further question to be raised, which transforms evaluation from a research exercise into a practical tool; "how can future work benefit from the answers?"

These are the guiding elements in the evaluation efforts of UNDP. As the world's largest multilateral programme for technical co-operation for development, working in virtually all economic and social sectors, and in multiple realms of human endeavour, the United Nations Development Programme faces especially challenging -- and potentially richly rewarding -- tasks of evaluation. Its partnership with over 150 countries developing and developed alike, and with 26 international agencies participating in the development programme, means that the range for the application of lessons learned from evaluation can be vast.

By publishing this series of evaluation study reports and giving them wide circulation, UNDP hopes to contribute not only towards enhancing the quality, relevance and effectiveness of UNDP-supported technical co-operation, but also towards enriching the general fund of knowledge about development design and execution in concept and in practice.

Evaluation of individual projects has long been a regular feature of UNDP operations. More recently, the scope of the evaluation function within UNDP has been broadened to encompass cross-country studies on specific subjects. These examine parent experience in well-established fields of technical co-operation, as well as the evolving "state of the art" in new and expanding areas.

The evaluation programme is formulated with policy guidance from the UNDP's 48-nation Governing Council. Each of the studies covers a different topic and therefore differs somewhat in approach and methodology. But all share at least two common characteristics: first, they are joint exercises of the relevant Executing Agency(ies) and of UNDP; and, second, the Governments concerned are co-operating by sharing in the preparation of the design and the result of each study.

To ensure that the experience gained and the lessons learned can be fully shared by all UN-system staff, each evaluation study will also be followed by the issuance of new operational guidelines for UNDP co-operation with Governments and Executing Agencies in the subject area. Such guidance will take the forms of one or more Programme Notes based on each study, and of the inclusion of evaluation findings in staff training programmes, seminars or workshops.

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The present report starts with an examination of a series of key facts about rural life and the rural context in developing countries. Two of these facts which explain why rural development has emerged as a crucial issue, are that the rural areas contain, on the average:

- * 75% of the national population of the developing countries
- * 80% of the "poverty group" -- people earning \$50 or less per year, or whose income is one-third the national average.

The report goes on to analyze rural development as a process of socio-economic change. It assesses the implications of such transformation for development strategies, for linkages between various economic and social sectors, for specific government policies and programmes, and for action at international level, including UNDP-supported technical co-operation.

The study concludes that two basic shifts are needed in rural development strategy:

- * closer involvement of the local population in the full process of rural development planning and implementation
- * stronger commitment by governments to redistribute to the rural poor not only resources, but also the means to permit capital accumulation.

Although prepared as part of UNDP's evaluation programme in consultation with its partner agencies of the United Nations system, the present report is a "staff study" rather than a policy prescription. As such, it does not necessarily reflect the official position of UNDP or the agencies on the issues treated. Its immediate value will be as a means of broadening the perspective of UNDP and Agency staff, and in contributing to thinking and action among government officials who make decisions on rural development policies and strategies. Its longer-term significance will be achieved if it helps to reshape technical co-operation to the needs of the large majority of people in developing countries who are rural and poor.



Bradford Morse, Administrator
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INTRODUCTION

The paper is based on a study carried out by UNDP staff. While UNDP considers that the views put forward are worthy of serious consideration, the paper is not intended as a formal statement of UNDP policy.

Rural development is a process of fundamental social and economic change in agrarian societies that covers all sectors. In most countries, specific programmes and activities initiated to bring about rural development are bound to be ineffective unless the over-all policy framework is oriented to overcome the conditions and forces that have led to wide disparities between the rural poor and the better-off modern sector. It is therefore essential that those dealing with rural programmes and projects should have an understanding of the over-all context and the interdependencies among the main components of rural development.

Rural development depends on many factors: the industrialization process and policies, health, education, agricultural development policies, nutrition, social stratification, ownership of means of productions, access to productive inputs, etc. Moreover, these factors themselves vary widely over time and from one country or area to another. There is therefore no single feasible, optimal or politically desirable set of strategies and policies that can be prescribed as the best solution applicable to all or even most developing countries. Consequently, the most that can be expected of a study of this nature, which treats the developing countries as a group despite immense variations, is to identify the most fundamental factors that influence the style and pattern of rural development. The weight which each of these factors should have must be decided by the policy makers in each country given its special circumstances and the degree of commitment to bring about structural changes in the lives of the rural masses, particularly the very poor.

A number of sources were drawn upon in conducting the study. First, articles, books, Government reports and agency assessments were reviewed, in particular those of FAO, ILO and UN and the World Bank. Discussions were held with staff of various multilateral, bilateral and non-Governmental agencies in their Headquarters and in the field. Some two hundred project documents and files were studied, as well as 60 responses to a questionnaire addressed to UNDP Resident **Representatives and project teams. Visits in 1976, 77 to Egypt, Tunisia, Afghanistan, India, Bangladesh, Bolivia, and Haiti** provided for examination of field projects and exchange of views with Government officials.

The present report has been divided into three sections:

- I - Summary and Conclusions (a brief, self-contained presentation)
- II - An Assessment of UNDP Experience and Suggestions for the Future (containing that part of the study which is most relevant to programming and implementing rural development activities)
- III - Broader Aspects of Rural Development (a supplement discussing agrarian society, the national framework, sectoral elements and programme approaches, in more detail, which may be of interest to those wishing to delve more deeply into the subject).

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It is hoped that this study will spark debate and self-examination within UNDP. There will be reservations and disagreements, and well there should be. The study will doubtless benefit from the ideas and observations of people in and outside the UN system. These ideas are solicited together with suggestions for following up the report with more specific training materials and workshops.

If the report contributes to stimulating an approach to rural development which betters the quality of life of the poorest and involves them in a self-sustaining improvement process, it will have achieved its objective.

Pages

PART I: SUMMARY AND CONCLUSIONS

1 - 10

(Concepts and the Context of Rural Development;
Sectoral Elements of Rural Development;
The Nature of Agrarian Society;
Government Strategies and Priorities;
Programme Approaches;
An Assessment of Technical Co-operation for
Rural Development;
Suggestions for More Effective Technical Co-operation)

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SUMMARY AND CONCLUSIONS

Concepts and the Context of Rural Development

1. The commonly held view which treats rural development as a sectoral category of programmes and projects with special characteristics is too narrow. In this report rural development is defined instead as a process of socio-economic change involving the transformation of agrarian society in order to reach a common set of development goals based on the capacities and needs of people. These goals include a nationally determined growth process that gives priority to the reduction of poverty, unemployment and inequality, and the satisfaction of minimum human needs, and stresses self-reliance and the participation of all the people, particularly those with the lowest standards of living.
2. National development strategies need to emphasize, and not merely recognize, the agrarian core of most Third World countries. Rural development must be considered both as an integral part and driving force of the entire development process. It cannot be pigeon-holed into a sectoral "box" for it includes every sector of the economy. When the anti-poverty, employment, distributive and participatory goals of development are considered, rural development takes on even wider significance, and demands far greater attention than it has received in the past in the majority of Third World countries.
3. Although there is now wider recognition of the need for such reorientation, there is a danger that the urgency of national action will be lost with slogans such as "integrated rural development" that may give the illusion of global panaceas. Moreover, rural development could become a casualty of the North-South debate on issues of international or domestic reform. It could be interpreted as an attempt on the part of the rich countries to divert attention from questions of international resource and technology transfer or to maintain Third World countries in their dependency status. At the same time, simple logic forces the developing countries themselves to give more weight to agrarian issues: the sheer mass of agriculture in most Third World economies and the need to match growing populations with more food and more jobs. There is no denying that most Third World poverty and its associated problems are concentrated within rural society and urban poverty can, in a sense, be viewed as a derivative of rural poverty.
4. Furthermore, rural development is not only a question of reversing urban bias and allocating more financial and technical resources to rural areas. The desired transformation of agrarian society in most cases requires a change of the structure of political and economic power, both local and national. It may be difficult for an international organisation to recognise that rural development depends less on technical solutions or capital resources than on appropriate social and political changes. While this fact limits the role of external co-operation, there is still room for worthwhile contributions by the international system. Given the numbers of people involved, even a modest improvement in the effectiveness of these contributions could have a tremendous impact.

5. In examining the technical co-operation activities of UNDP, the term "rural development" as used in this report includes all activities intended to improve directly the living conditions of rural people. They may be sub-sectoral or specialized, or of a multi-sectoral or area-based nature. Often they address questions of national policy, or of national planning, training and research needs. They sometimes involve work directly with rural populations and institutions. In any case, the boundaries imposed by criteria such as "multi-sectoral," "integrated" or "target group" are deliberately avoided.

6. Although agriculture plays a central role, there are many other possible approaches or "entry points" to promoting rural development. Only a few of these will tackle problems on several fronts simultaneously. Failure to appreciate this point has led to suspicion towards rural development in many countries and agencies. For instance, whereas a project promoting seed multiplication, crop development, teacher training, non-conventional energy, or water management may be welcomed by most Governments, the same Governments may balk at technical co-operation in "rural development projects" which encompass a number of activities within a single package. However, if these specialized activities do not contribute to rural development as an objective, then they should not be treated as development projects at all.

7. In considering potential interventions, the rural community must be taken as the focal point for analysis. It is at this level that most production decisions are made, where social relationships are affected, where changes in living conditions take place. It is not an exclusive focus, however; the rural household may be more relevant in some cases, whereas in others, the links between the rural community and the wider society may be the most important ones to understand. Nevertheless, every technical co-operation activity for rural development should be analyzed from the point of view of the participation and involvement of the rural community and the effect on different groups within the rural community, particularly the deprived groups and the women and children within these groups. How are these deprived groups likely to take part in the planning, implementation and evaluation, and to share in the benefits, of the programme to which technical co-operation is providing an input? How is the programme likely to improve their relative position? How will it increase their capacity to engage in a sustained process of development?

Sectoral Elements of Rural Development

8. It is of critical importance to analyze the relationship of the project to the other aspects of rural life which it does not address directly. This analysis should determine project design since it provides an understanding of the assumptions on which the links between project inputs and outputs have been based. Rural development is an integrated process because of the nature of the rural community: low levels of specialisation; absence of separation between economic and non-economic interests; importance of group obligations and responsibilities; combination of vertical factions and horizontal stratification in the society; and above all, the integration of problems imposed by poverty at the margin of survival, where even a small

change brought about by a "sectoral" intervention may threaten the precarious balance.

9. Also, the sectoral elements of rural development are mutually reinforcing. Research findings confirm the close links between health, nutrition and fertility; between education, migration and settlement patterns; between technology, employment and their relationship with forms of agricultural and industrial development; between climate, natural resources, energy and environmental factors. Cutting through most of these sectoral considerations are patterns of wealth and income distribution and the effects of rising incomes, savings and investment opportunities. It is not a question of recognising abstract relationships between the sectoral aspects of rural development, however, but of understanding how those aspects in fact operate in any particular situation: how they affect the rural community and respond to its changing requirements. The introduction of a new technique or service through technical co-operation will influence some elements of rural life more than others, but the analysis should consider all elements as an integrated whole.

10. This integrated perspective is also valuable in breaking down the dichotomies commonly made between "social" and "economic" services. Those that have a consumption aspect such as improved nutrition or education may, given low standards of living, contribute a great deal to growth. The possible reduction of birth rates through improved health is a case in point. It has been conventional wisdom to state that the primary emphasis in rural development efforts must be to increase the material base through extra production. The immediate bottlenecks, however, may lie elsewhere: for example, in the need to change land tenure systems, create new organisations, introduce new skills, eradicate common diseases, or build roads. Different social groups within the same community are likely to face different constraints and define priorities accordingly. Flexibility is needed regarding the sequence of steps or the relative emphasis given to interventions in different areas depending upon the specific problems and capacities of the rural community or communities involved and on the feasibility of the intervention proposed. Consequently, a systematic investigation of the entire complex of sectoral problems from the point of view of different social groups within the community is necessary.

The Nature of Agrarian Society

11. The need to know the characteristics of the agrarian society one is dealing with would appear to be self-evident. However, such knowledge has been seriously deficient or totally missing in the design of most rural development programmes. The nature of the peasant society and modes of production will almost certainly have an effect on the success of a technical co-operation project. Yet, more often than not, project design deals insufficiently with the agrarian base and assumes that the programme is going to be carried out almost exclusively through the Government machinery without active local involvement. It is easy to see why: the frequently exaggerated assumption that the host Government will be reluctant to allow the requisite socio-

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political analysis and even more so to make the structural changes that may prove necessary; and the difficulty, particularly for outsiders, to carry out the analysis itself.

12. Certain knowledge is indispensable if technical co-operation is not to shoot completely in the dark. How does the rural community function? How is labour organised between sex and age groups? What are the sources of non-farm employment? Who controls the factors markets? Who are the leaders and the links with the Government? What are the local institutions and authority structures? How stratified is the society and how are benefits likely to be captured? What forms of co-operation exist within the community? What is the potential for conflict? In its historical context, how was the production system developed, including the technologies in use? How have the ties to local markets, urban areas and external markets grown and whom have they affected? How has the land tenure system come into being and how is it changing with technological innovation and population growth? What are the relationships between the rural community and the world outside? How dependent is it on urban and foreign markets for supplies, technology, services and sales? How much emigration takes place to other villages and to cities? How important are remittances? How do the rural poor view the Government and its administrators and technicians? On whose side do they perceive them to be? What role do political parties play? How do over-all national development policies, targets and strategies affect the rural areas and the rural poor? What policy instruments are available to promote rural development? Are there contradictions and inconsistencies between over-all and rural development objectives?

13. The sectoral components of rural life must be related to the information on agrarian structure to provide a composite picture of conditions and problems, potentials and constraints. Then it should be possible to "plan from below," to see how far local resources and skills will go. How can the locally generated surplus be reinvested locally? What possibilities exist for non-monetary capital formation through labour-intensive public works, such as improving and conserving the land, planting woodlots for fuel supplies, and building feeder roads? Is it possible to organize and train villagers to run their own services of health, education, extension and marketing? Is it possible to build up their capacity to innovate on the foundation of existing technologies?

Government Strategies and Priorities

14. Most initiatives for agrarian transformation in Third World countries will have to come from the Government. Government intervention brings about changes in the distribution of assets and income and in the production system, provides much of the necessary infrastructure of irrigation, roads, electrification, etc., introduces fresh ideas and techniques, and supplies the impetus to local training and services.

15. More aware of the Government context than of the structure of agrarian society, technical co-operation activities have often limited their perspective

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to the particular department administering the project. Broad Government planning priorities and sectoral development strategies, which are very pertinent to the ability of an individual project to contribute effectively to rural development, have been often neglected. Nearly every Government allocative and policy decision affects rural development, either by commission or omission. Investments in urban industrial development and the consequent rise in wages and urban incomes will likely attract rural talent to the city. Pricing policies can make investment in industry appear more profitable to private entrepreneurs than agriculture and attract investment funds out of the rural economy.

16. All sectoral elements of rural change are susceptible to Government strategy and policy decisions: the content and coverage of the education and health systems; the technology choices in production processes which have employment and income effects; the pattern of industrial and agricultural development which in turn reflect the Government's over-all development objectives, e.g., import substitution or export promotion, location of new industries and policies to encourage decentralisation, willingness to redistribute incomes to influence demand, or undervalue the local currency to raise the price of capital. By influencing the terms of trade between farm and non-farm products, or through taxation, the Government determines the utilisation of the agricultural surplus for rural reinvestment or urban industrial development. Above all, it is the Government that decides to change the distribution of assets, particularly land, in order to promote a different pattern of growth. The administration of development activities takes place within the context of specialised ministries and their degree of delegation to field units in the regions and districts. The interaction of these Government departments with the indigenous rural organisations has a profound repercussion upon the rural development process.

17. The socio-economic context of a technical co-operation project is affected by Government views and decisions, many of which are not specifically directed to rural society. Projects, therefore, should analyse this strategy and policy framework to see how it is likely to affect project design, how it influences the economic viability of programme interventions, and how it determines the distribution of benefits to members of the rural community.

18. The three levels of analysis, namely, sectoral links, agrarian social structure, and the Government policy setting, constitute a complex framework for a technical co-operation project intended to contribute to rural development. The number of factors involved may make the process of analysis seem too complicated for what may be a small input from the international system. Comprehensiveness, however, does not require analysis in equal depth of all factors. The relative importance given to understanding different aspects will obviously be determined by the nature of the programme intervention. Working through non-Governmental organizations including co-operatives, trade unions, rural women's groups and youth groups would enable UNDP-funded activities to get in touch directly with the grass-roots.

19. Third World countries can be categorized into three, broadly defined "styles of development" according to the nature of the socio-political strategy

options they have taken: technocratic, reformist, and radical. In the technocratic style, increases in aggregate output take precedence over all other objectives, and inequalities are tolerated as contributing to higher rates of economic growth. The reformist and the radical style differ in the degree to which they are willing to compromise economic growth for the sake of greater equity and mass participation. As far as rural development is concerned, the radical style emphasizes far-reaching land reforms and the redistribution of assets rather than income.

20. Most Third World countries today cluster towards the technocratic end of the spectrum, There are two main courses of action open to technical co-operation in those countries where the Governments are unwilling or unable, because of their political philosophy, to undertake far-reaching reforms, even as a pre-condition for rural development. One course is to assist in undertaking rural development experiments in a few local areas in order to show what can be done. The other is to minimize the negative consequences of technical co-operation where there is a high degree of inequality, by concentrating on the problems and needs of the lowest income groups.

Programme Approaches

21. An examination of the approaches being followed in a number of Government programmes and their accompanying technical co-operation projects showed that they are seldom based on the principles and analytical framework advocated in this report. In most cases they were not planned explicitly to achieve any significant wider development aims. Rural communities were generally treated as homogenous and there was little apparent effort to avoid differential access to programme benefits resulting from the unequal distribution of wealth, power, and influence. Although this has a neutral or even a negative effect on the status of the rural poor, programmes specifically designed to counteract these effects are still rare.

22. Most agricultural service programmes (research, extension, credit, marketing) are still carried on in relative isolation despite the obvious interdependencies. The main beneficiaries are the larger landholders who have easier access to credit and good marketing arrangements and who are better served with extension advice. New agricultural technology is developed on research stations where husbandry methods and field layouts usually differ from small farm conditions and where objectives relate to increasing the yield of a single crop. While this research has produced more grain in some countries, in most cases the landless and the marginal farmers have not benefitted significantly since they did not have access to the necessary inputs. Whole farm system research that takes into account the competing demands for family labour at peak periods, the sex-differentiation of rural tasks, the difficulties in raising cash and having access to purchased inputs, the need for a steady flow of food over the year from tiny holdings and the existence of surplus family labour over much of the year, is still the exception. The effects of increasingly monetized and mechanized production by the larger surplus farmers on the food-deficit cultivators and the landless, are rarely considered.

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23. Reform of land tenure and redistribution of land should be a first step towards an equal sharing of the benefits of new technology, but most programmes have made little headway against the barrier of vested interests. Settlement programmes, wherever practicable, receive much wider support as a means of relieving pressures. They have proved, however, costly in terms of the number of beneficiaries, while the problems in the areas from which the settlers come remain virtually unchanged.

24. Community development and public works programmes have been disappointing for a number of reasons. They have run into problems stemming from the unrealistic assumption that labour and local resources would be given voluntarily and equally, regardless of community factions and groups and the likelihood that the benefits will not be equally shared. Difficulties with technical support from ministries not directly responsible have also affected both groups of programmes.

25. Community development programmes have attempted to base themselves on the local situation and have viewed development problems in a comprehensive manner. However, the absence of concomitant changes in the locus of decision-making, of viable production-oriented programmes and capital accumulation, and the continuation of the vertically structured planning and administrative apparatus have made it difficult to translate these approaches into successful community-based strategies. Even where factionalism has been accommodated, the state apparatus has not been prepared to respond to the challenge of this bottom-up, multi-sectoral style of development.

26. Public works programmes have similarly failed to make the necessary links with related programmes in other ministries. Further, such programmes have generally been carried out on a "shoestring project" basis rather than being viewed within an over-all regional planning framework and given solid financial support as a means of labour intensive capital creation leading to long-term increases in income and employment opportunities.

27. Education and health programmes are still generally regarded as public service activities rather than as contributors to the development process. They still suffer from quality standards derived from developed countries which, because of their high cost, prevent their spread to the majority of rural dwellers (although admittedly a change has been taking place recently in this regard). Traditional education programmes perpetuate the split in society between literate and illiterate and aim at preparing pupils for largely non-existent urban jobs instead of being based on the learning needs of the rural society. Vocational training efforts have also contributed to the accelerated flow of educated youth to the cities. These efforts have also failed to provide follow-up support and have not been synchronised with job opportunities. Imaginative, non-formal education programmes can form a good basis for community participation and can be regarded as an excellent "entry-point" to the type of development advocated in this report. Unfortunately, they have often involved an excessive contribution on literacy skills per se rather than on the basic learning needs of the individual and group. Also, failure to create conditions under which new skills can be applied are likely to lead to the same type of frustrations as the better community development efforts.

28. Primary health care programmes form an equally valid starting point for building community skills and involving people in their own development, rather than concentrating on programmes that are essentially urban-based, high-cost, curative, and reach only a portion of those in need of help. The approach involved in primary health care takes into account the range of basic human needs and recognizes the distribution of wealth and income needed to obtain these for everyone. The majority of the medical profession in most countries was until lately indifferent to this concept, and few Governments have seriously begun to take the steps necessary to translate this excellent concept into action. 1/

29. Comprehensive area programmes have become increasingly popular among donors seeking to create the necessary conditions for approaching development in a multi-sectoral manner. By taking limited areas and creating strong links between sectoral administrations many advantages are derived, especially when steps are also taken to improve the delivery of services at the community level. These advantages have often had to be bought at the price of setting-up a separate administrative structure with few links to the regular administration. This generally leads to higher recurrent costs which cannot be supported by the Government once the project is completed. Donors, in their haste to achieve impact, have spent large sums on capital investment, attracted outstanding nationals through incentive payments, and have substituted scheme inputs for community inputs. These considerations, together with the isolation of the area administrations, have cast doubts on the continuity and replicability of such efforts. Smaller, integrated approaches based upon maximum self-reliance, major training efforts, and reorientation of staff within a decentralized administrative structure, would accord more closely with the resources of most Third World countries. They would need, however, to be backed by an appropriate development strategy and the requisite degree of accompanying policy and structural changes.

An Assessment of Technical Co-operation for Rural Development

30. Most technical co-operation projects in supporting institutions and programmes which are ongoing or already planned adhere to the general thrust of these programmes. On the whole, they share the same limited perspective of development and a seeming lack of attention to the differential development effects on the different groupings within agrarian society. A survey of 60 UNDP-financed projects showed that technical co-operation inputs are being used to fill shortfalls in technical and administrative capacity rather than to inculcate new skills or to test new ideas and approaches to rural development. The analysis of a questionnaire also brought out three factors:

i) Failure, in general, to identify precisely socio-economic and physical environmental factors related to the project beneficiaries adversely affected project design and implementation. Also, lack of baseline data made it difficult to measure project impact.

ii) Local communities were viewed as passive rather than as active participants. Most international personnel were not equipped to encourage a different approach which, in any case, would mean a fundamental change

1/ The important impact that Primary Health care can have in contributing to rural development was a major theme of the recent Conference in September 1978 in Alma-Ata, USSR.

in the working methods of most associated Government programmes.

iii) Technology improvement was viewed mainly as a matter of straight transfer, with problems being identified by international staff and national officials, often on the basis of limited knowledge of the real conditions in rural areas and of the perceptions of rural dwellers.

31. International personnel sometimes failed to examine critically technological prescriptions to assess their adequacy to meet the actual problems as perceived by the different groups and strata of rural dwellers. Many technological problems, especially with regard to organisation and management, were not amenable to quick outside solutions. In any case, the "one shot" preconceived technology prescriptions ignored the realities of radically different resource endowments between groups and areas and the differing perceptions of risk associated with change, as well as making unrealistic assumptions regarding existing channels of support.

Suggestions for More Effective Technical Co-operation

32. Improvements of the effectiveness of technical co-operation for rural development are based upon the argument that the flexibility that may be found in technical co-operation financing, together with advantages arising from the status of outsiders and wider contact with new approaches throughout the world, give rise to comparative advantages which could be better exploited. Most recommendations relate to moving Government programmes in such directions as financing action-research and demonstrations within the framework of ongoing programmes, facilitating the exchange of experience between programmes in similar situations in different countries, on-the-job reorientation, and exchange of national personnel between programmes abroad. Suggestions for improved project design are also advanced by building specific areas of knowledge into the project design framework, discussing methods for improving project flexibility, and raising the effectiveness of monitoring and evaluation procedures.

33. Three ways of enhancing communal participation, which are overlapping, reinforcing and common to a wide range of programmes, are suggested. They relate to actions to promote participation in:

i) The identification of not only technology needs but also of technology resources actually and potentially available, locally, nationally and internationally, as well as the subsequent research and development activities. Such steps will require a fundamental change in the thinking and work methods of the scientific establishment in most countries.

ii) The development of non-formal basic education systems which involve the majority of the people and strengthen their motivations as well as their technical organisational and planning abilities to work towards their own development. Training activities should be developed within the community and involve local officials in learning and guidance roles.

iii) The encouragement of community-based planning of improvements which (a) use mostly local resources, (b) combine local efforts with some Government

inputs; (c) support and sustain Government services; and (d) provide inputs and insights into traditional Government activities, such as research or area planning.

34. The potential for community involvement has been seriously underestimated, and knowledge of effective approaches is scattered and sparse. The need to develop new approaches and to build on the few positive experiences available, presents an opportunity for imaginative interventions on the part of external technical co-operation. Together with the above three-pronged effort, attempts will have to be made to adjust the structure and mode of operation of all Government agencies involved in rural development. Technical co-operation can facilitate these changes by disseminating knowledge of designs which have been tried elsewhere, by introducing improved management and monitoring techniques, and by financing and supporting reorientation and training courses for Government officials.

35. The report advocates a more experimental role for technical co-operation in rural development in view of the lack of knowledge regarding the process in general. This view is shared by most field workers even though many bureaucrats may feel that the answers are known and the solution lies simply in increased resources. The approaches advocated will not require massive amounts of funds but call for changes in thinking about development and a reorientation in the character and priorities of technical co-operation. UNDP has already undertaken some limited research and experimentation along the lines advocated, e.g., in the inter-regional and global projects INT/74/026 "Planning and Administration of Special Public Works Schemes for Least Developed Countries," GLO/77/004 "Role of Self-Help Groups in Rural Development," and the Bangladesh project "Studies on Social Constraints to Production." The FAO-financed regional project in four Asian countries which centres on forming development groups for under-privileged villagers, is one of several interesting initiatives, in addition to others in such fields as primary health care, rural employment and non-formal education.

36. The current work of the ACC Task Force on Rural Development provides an opportunity for UNDP and the **Specialized Agencies** to work more closely in the planning, programming and implementation of field activities. UNDP can become more involved with agency regular programmes as well as promote its own ideas regarding long-term research areas. Efforts to associate UNDP more closely with current thinking on rural development in the agencies should be accompanied by efforts in the direction of NGOs, bilaterals, universities (including the UN University which is developing a highly relevant programme), and development institutes. UNDP Headquarters should make an effort to digest this flow of information and promote relevant approaches through UNDP field offices by means of training and reorientation courses.

37. Field office capacity for analysis, monitoring and evaluation of activities and developments affecting agrarian society should also be strengthened. This would not only involve extensive staff training and adjustments to recruitment criteria, but also the disbursement of funds specifically for background analysis (for which local institutions could be relied on extensively).

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Chapter I - THE CONTEXT OF RURAL DEVELOPMENT

The Concept of Rural Development

1. The concept of rural development has proved to be elusive, as witnessed by the many definitions in use by different institutions and authors. Even today there is broader agreement on the appropriate objectives for rural development than on what it is.
2. Recognizing this divergence of views and of its negative effects on co-ordination of activities, the UN Economic and Social Council, through the Administrative Committee on Co-ordination (ACC), set up in 1975 a Task Force of the principal UN organisations concerned with rural development. A study^{1/} of the policies and practices of the various UN organisations in this area proposed an objective for rural development which the ACC member organisations were able to agree upon.
3. "A primary objective should be to improve the quality of life of the rural poor. This implies the involvement of the rural poor in the development process and requires their participation in the decision-making process and the implementation of those decisions. It presupposes that the rural poor will gain increased economic opportunities through productive and remunerative employment, increased access to resources and an equitable distribution of income and wealth. The mobilisation of the energies and resources of the rural poor themselves emerges as the key factor in increasing both their productivity and their self-reliance. Such mobilisation requires the formation, adaptation and strengthening of community structures, including organisations of the rural poor. Special attention should be given to the situation of women to enable them to contribute their full potential in improving the quality of life of all the rural poor, for the present and future generations. Basic services for the most vulnerable groups, among them children, should also form part of community-based rural development programmes and can in fact be regarded as a starting point for them."
4. "The ACC recommends that organisations of the United Nations system should be asked to orient or reorient their programmes in rural development to ensure that the benefits accrue primarily to the rural poor." (E/5809, 28 April 1976, paragraphs 27).
5. At its 61st session, on 3 August 1976, after reviewing the ACC's report, ECOSOC adopted the following decision (E/AC, 24/6, 525/Rev. 1): "...urges the governing bodies of the organisations of the United Nations system to give priority, where appropriate, in their respective work programmes, to rural development, taking into account the considerations set forth in that report and consistent with national priorities."

6. As the ACC study itself recognized, in recent years several organizations of the United Nations system have been re-examining the orientation of programmes within their respective responsibilities in order to give greater weight to the same considerations cited by the ACC as central to rural development objectives. The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) had come to similar conclusions after conducting two joint studies in 1974 and 1976 on alternative approaches to meeting basic health needs and community involvement in primary health care. Providing primary health care and delivering basic services both lay great stress on the involvement of the local community in diagnosing problems, contributing resources, and deciding priorities jointly with the Government. The key relationships between poverty, general economic and social development and problems of health, nutrition, education and family care were also recognized. In the promotion of basic needs approaches to development at the 1976 World Employment Conference, the International Labour Organisation (ILO) similarly recognized the importance of stressing the requirements of the poorest groups of people by increasing their productivity and incomes. The Food and Agriculture Organization of the United Nations (FAO) advocated "integrated rural development" programmes which emphasized a systems approach to rural development planning, integrating socio-political, economic and technical factors, and pursuing growth and equity objectives within a single development strategy. The World Bank, following its Annual Meeting in Nairobi in 1973, adopted a target group definition of rural development, as "a strategy designed to improve the economic and social life of a specific group of people -- the rural poor" -- by raising their output and incomes. UNESCO, in a set of "principles of action" adopted by its 1977-82 Medium Term Plan, emphasized the importance of multi-sectoral integration, the reduction of existing inequalities by taking greater account of the needs of the most disadvantaged rural populations, and popular participation.

7. These statements on objectives, in dealing with rural development, concentrate on the alleviation of poverty, the necessity for community participation, and the need to take account of multi-sectoral linkages. However, it is not clear what rural development is.

8. Most organisations consider rural development a specific category of programmes, thereby excluding others which have potential impact on the lives of rural people. The World Bank, for instance, defines rural development as "a strategy designed to improve the economic and social life of a specific group of people -- the rural poor..... The Group includes small-scale farmers, tenants and the landless" (World Bank, 1975). Yet there are many programmes which benefit rural people, including the rural poor, but which are not specifically designed for their benefit; for example agricultural, rural health, rural industry programmes. The Bank would classify these as rural development activities only if the majority of the benefits went to the rural poor.

The Basic Thesis

9. Rural development is a process of socio-economic transformation that is semi-autonomous and can take place without any specific measures by the Government or any outside agency. The report to the ACC states: "historically, with very few exceptions, such rural development as has occurred has done

so in spite of the Governments" (although, of course, a favourable national policy framework will undoubtedly speed up such a process). The transformation, to be called rural, relates to agrarian society. To qualify as development, it must contribute to the attainment of the goals discussed earlier, namely, the reduction of poverty, unemployment and inequity, the satisfaction of basic needs, and increasing self-reliance. The process is concerned with all aspects of rural life. In fact, with most of the Third World population still rural, the transformation of agrarian society cannot be dissociated from national development. Rural development lies at the heart of national development. Consequently, most development efforts and resource allocations, by omission or commission, affect rural development, and this entire complex must form the subject matter for an understanding of the process. This will, however, eventually undergo through a process of modernization as resources will have to be shifted away from agricultural/rural areas in the longer-run due to income activities of demand and side economies.

10. For UNDP, which classifies its activities on a sectoral basis, what projects should be considered to contribute to rural development? There are obviously no clear dividing lines. All activities that are intended to improve directly the living conditions of agrarian society should be regarded as projects to promote rural development. They may act at the grass-roots or central Government level; they may be sectoral or multi-sectoral; they may seek to increase production, income, welfare, employment or any combination of these objectives.

11. The terms "integrated rural development" and "community development" have tended to confuse the discussion. Integrated rural development is a systems concept -- a multi-sectoral, multi-faceted approach to solving the problems of an area. Integration of the low-income elements of the population in the production process, co-ordination of different government departments, and institution-building activities are all part of the concept. Community development, a term widely used in the 1950s and 1960s, fell out of favour as people became disillusioned with its lack of results. Community development was a deliberate reaction to the sectoral production approach which paid insufficient attention to local participation and incorporation of the rural poor in development efforts. In practice, over-stretched in its aims, starved of investment resources, oblivious of local conflict and inequalities, community development came to be seen as a combination of welfare services, agricultural extension and construction of small-scale works on a 'self-help' basis. Integrated rural development now claims to be different from community development, more conscious of raising productivity, "hard-nosed", etc. Both these terms as practised, however, refer to a category of programmes, as distinct from the process of rural development discussed above.

12. This concept of rural development as a process has determined the scope and structure of this report. Since it encompasses so many activities, an attempt is made to present a way of looking at the subject, rather than to construct guidelines on each type of intervention. This report is therefore in the nature of an "umbrella" paper, and many topics are necessarily treated superficially. As to how to improve technical co-operation at the level of individual

projects, it will be necessary to deal with each of the programme categories, evaluating experience and recommending changes in inputs from the international system. These programme categories need a common developmental framework, which the following text should help to construct.

Rural Poverty and Development Strategies

13. Approximately 75 per cent of the Third World population live in rural areas. The poor are disproportionately located in the countryside. 2/ It is estimated that at least 80 per cent of them live in the rural areas, mostly as small farmers and landless labourers. Outside China, there were 530 million rural people in the poverty group in the Third World in 1960 (estimated to have grown to 580 million by 1974), 70 per cent of them in Asia, 22 per cent in Africa, and 8 per cent in Latin America. The four Asian countries of Bangladesh, India, Indonesia and Pakistan alone accounted for 62 per cent of the absolute poor. The rural poor, however, accounted for a substantial proportion of the total rural population of all three regions: 43 per cent in Asia, 41 per cent in Africa and 38 per cent in Latin America.

14. Hunger and malnutrition are invariably associated with poverty. At the World Food Conference FAO estimated that 25-30 per cent of the population of South Asia and Africa suffer from malnutrition, which conservatively affects about 460 million people in the market economy countries of the Third World. Furthermore, in these countries unemployment is growing even faster than labour force (3.0 per cent and 2.3 per cent per annum respectively), and most of the increase in jobs will have to be provided in the rural areas. Even in Latin America, where urbanization has gone farthest, the absolute numbers of rural people will continue increasing to the end of this century. In the Third World as a whole, the rural population is growing by approximately 2 per cent a year.

15. Access to clean drinking water and sanitation, other indices of poverty, are more deficient in rural areas, reaching only 10 per cent of the population in low income countries. Similarly, access to health and education facilities is much worse in rural than in urban areas, as are infant mortality, life expectancy at birth, and the incidence of most diseases. 3/

16. That the actual or perceived opportunities in rural areas are less favourable than in the cities and towns has been amply demonstrated by the exodus from the countryside, a route that may be lessening in attraction.

India has been experiencing a slower rate of population growth in the large cities since the early 1960s, the result of reduced migration as well as declining birth rates. Particularly in the densely-populated region of South Asia, a growing number of people are being forced off the land as a result of evictions, rising debts, natural calamities and population growth. The resulting social unrest in the countryside has sometimes erupted in violence, which modern communications and political processes have brought closer to the urban centres of power and perhaps led to increased awareness of the need for rural development.

17. Rural development was neglected in the past largely because of pre-occupation with maximizing income. Increase in the gross national product was regarded as the best single measure of national progress, as it represented more resources that could be used for more equity at some future time. Large-scale industry rather than agriculture tended to be seen as the "engine of growth," particularly during the 1950s and most of the 1960s. Growth would be accomplished by progressively increasing investments in industry and by shifting the "unlimited supply of labour" from agriculture to urban or enclave-based industry. Thus, what should be the basic objective of development -- improvement of living conditions of the largest possible part of the population -- was neglected. In that GNP per capita in the Third World countries grew at an average rate of 3.4 per cent per annum during the quarter of a century between 1950-70, faster than any group of countries, rich or poor, had grown in any comparable period in history, this strategy was successful.

18. It is now apparent, however, that a decade of rapid growth in underdeveloped countries has been of little or no benefit to perhaps a third of their population. Although the average per capita income of the Third World has increased by 50 per cent since 1960, this growth has been very unequally distributed among countries, within countries, and between socio-economic groups. Latin American countries increased their per capita income levels from five times to seven times over South Asian; Middle Eastern countries from five times to thirteen times those same levels. Meanwhile, the biggest group of South Asian and many African countries with a total of 1.1 billion people, grew in per capita income terms by less than 2 per cent per annum, from a very low base of \$60-150 each. The share of poorest people in GNP has declined over time in several countries. Those most in need of development have often benefited the least.

19. Almost exclusive concern with growth maximization measured in terms of aggregate output and on resource allocation to the most productive sectors of the economy, measured in terms of market prices, was based on the development experience of today's rich countries prior to the early 1930s. However, today's industrialized countries developed under special conditions that cannot be repeated. They experienced a pattern of transformation from a state of rural underdevelopment to the dominance of an urban industrial sector. The share of agriculture in total labour force and in national output decreased as urban industrialization accelerated. The higher wages of industry pulled surplus labour out of agriculture until average productivity levels in the two sectors neared equality. This process was made possible by international migration, settlement, and colonization which stimulated markets

for manufacturers and access to raw materials, as well as by the lack of any perception of equality among the masses of people.

20. The type of industrialization favoured by many developing countries, however, has not been capable of absorbing excess rural labour, at least at the levels required to reduce unemployment, both rural and urban. Land is no longer abundant, frontiers are closed, export conditions are unfavourable as a result of protectionism and competition in world markets. The Third World must cope with unprecedented rates of population increase and urban growth.

21. Ninety-eight per cent of the world's research and development expenditures on new technologies takes place in the rich countries under conditions of relative factor scarcities (cheap capital and high wages) that are diametrically opposed to those of labour-surplus, capital-poor agrarian economies. These technologies sometimes require levels of skills and management that are generally higher than those available to newly independent nations. Many require large scale production and large markets that lead to concentration in urban locations. Many are fossil fuel intensive at a time when such energy supplies have been soaring in cost. These alien technologies do not build on indigenous know-how and the capacity to innovate of the millions of small producers in agrarian societies.

22. As a result of greatly expanded communications and political consciousness, ordinary people as well as statesmen have become impatient not only for rapid over-all growth but also for greater equality and betterment of life. It is highly unlikely that a politically-viable development strategy today can tolerate the time lag between aggregate income growth and more equitable distribution which marked the development process of present-day high income countries throughout most of the 19th and part of the 20th century.

23. The content and pattern of growth have become increasingly important, not only in ensuring viable economic growth but also in meeting welfare objectives. In basically agrarian societies, if growth is based on the efforts of the few to whom the benefits flow, it brings its own stagnation, as markets shrink and the incentive to work diminishes. Moreover, the assumption that income distribution policies could be divorced from growth policies and that distribution could be achieved later, has been challenged as a narrow interpretation of the interplay of economic and political institutions in poor countries.

24. The growing prominence in the last few years of rural investment in many national plans is due also to a wider recognition of its potential contribution to economic growth. Consciousness of the ability of food production barely to keep pace with population growth has also been responsible for this new emphasis. In spite of improved varieties of food crops offering higher returns in agriculture per unit of land, the per capita food production in 1974/75 was only slightly above 1950/51 levels.

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25. Yet purely in terms of contributing to economic growth, rural development has been seriously underestimated by many development planners. Apart from equity considerations, there is considerable evidence that an increase in the proportion of total investments to rural areas would be efficient. With about 70 per cent of labour in agriculture which contributes about 45 per cent of national output, agriculture receives approximately 20 per cent of total physical capital. Some recent analyses conclude that capital can be used with much greater efficiency in agriculture than in other sectors. The current yield of directly reproducible, allocable capital is typically 1.6 to 6.8 times higher in agriculture than in non-agricultural activities, productivity differentials which may moreover be understated by distorted pricing policies for farm and non-farm output. This is also evidence that incremental capital output ratios are also estimated to be over twice as high in non-agricultural activities than in agriculture. If evaluations are made on the basis of the social return, the appropriate percentage would be even higher. Thus, it may be a fallacy to categorize productive rural development as "soft" programmes or projects.

26. Consequently, the limitations of industrial and urban-centered development attracted increasing recognition during the First Development Decade. More recently, the importance of rural development has been stressed in the Nairobi address of the World Bank President in 1973, where the plight of 100 million families of small farmers (those with less than five hectares) became the central theme. During the last five years, a series of international conferences have converged on the same basic theme of rural poverty: the World Food Conference in 1974, the World Population Conference in 1974, Habitat and the World Employment Conference in 1976, the World Water Conference in 1977, the Primary Health Care Conference in 1978, and the Conferences planned on Agrarian Reform and Rural Development in 1979 and on Women in Development in 1980.

27. The World Bank, the regional development banks, and many of the major suppliers of international aid have taken steps to allocate more funds to programmes designed to benefit the poor directly, including the introduction of income distribution criteria as part of the project appraisal process. Although this attention is a welcome change, there is a real danger of losing impact unless international interest is coupled with political decisions. Needless to say, rapid transformation of rural masses calls for a reorientation in the fundamental policies and perceptions of development of the Third World countries themselves.

28. It is essential not to lose sight of the fact that development is about, by, and for human beings, as individuals and as social beings, aiming at their liberation and fulfillment. Improvements in the conditions of life must ensure adequate food, employment, health, habitat, and education; as well as recognizing the needs for self-reliance, a minimum degree of security, participation in decisions that affect oneself and one's family, and a sense of purpose in life and work, including the opportunity to be creative.

29. A style of development that gives priority to satisfying the needs of the large number of poor people requires a different composition of products

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and techniques from that copied, or transferred, from industrialized countries. The prime objective of relieving poverty signifies a concentration of effort on improving living conditions in the countryside where most of the poor are found. It alters the pattern and composition of international trade, and encourages trade of similar products among the Third World countries.

30. Rural development is not a special type of development separate from national development; it must work towards the same goals. It is assumed throughout this report that rural development often calls for a redefinition and refining of development objectives, emphasizing the general well-being of the poor, particularly the rural poor, and promotion of self-reliance in the sense of self-confidence, reliance primarily but not exclusively on one's own human and natural resources, and for autonomous decision-making. Specific strategies for achieving these development goals need to be determined and clarified further, in harmony with the circumstances of each particular setting.

Chapter II - An Assessment of UNDP-Financed Technical Co-operation for Rural Development

Introduction

1. The opinions expressed in this chapter are based on experience in connexion with UNDP evaluations and appraisals of projects related to rural development, participation in field tripartite reviews of UNDP-assisted projects, and in the continuing work of the ACC-sponsored UN Interagency Task Force in "Poverty-oriented" Rural Development. They also rest on the work undertaken specifically for this report: field visits, interviews with government officials and the staff of bilateral and multilateral agencies, and responses to a project questionnaire.

Perceptions of UN Agencies and Governments

2. The content and orientation of UNDP-financed technical co-operation for rural development has been determined by the perceptions of UN agencies and participating governments of what rural development means, or more accurately, the perceptions of those individual officials directly involved in rural development activities. UN agencies and the Third World governments have tended to perceive rural development as a particular set of government-initiated and controlled activities to increase agricultural production, particularly of food. Most of them acknowledge that the concept encompasses a subsidiary concern with improving the welfare of rural inhabitants through complementary efforts to improve education, health, and public infrastructure. Consequently, they generally separate activities designed purely for agricultural development from rural development, the latter having a "soft" social component. More recently, "rural development" has also acquired an anti-poverty connotation in specifically addressing the needs of the "target group" of the poor. The practical consequences of this last change in perception have not yet been felt to any substantial degree.

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3. Thus, rural development tends to be viewed as a definable set of programmes that Governments, with external co-operation in some cases, initiate and control themselves. The concept of rural development as a process of far-reaching political, economic and social transformation of agrarian society, and of agrarian society as the core of Third World national development, rarely emerges. The historical causes of rural underdevelopment or the changing relationships between the peasant family, community and state, are rarely considered. Relationships of power between urban and rural inhabitants, between bureaucrats and peasants, between producers and owners of the means of production, between the various hierarchies and social classes, and even between men, women and children within the same families are not taken into consideration. In ignoring social conflict as well as the complexities of agrarian society, false assumptions are made about economic behaviour which lead to unrealistic expectations of response to planned interventions by the government.

4. Most government programmes reflect the view that rural development means the modernization of traditional, static societies, mainly by appropriating the agricultural and manpower surplus from rural areas for purposes of industrial development. Fortunately, however, this urban-biased perception of growth seems to be waning. Both in inter-governmental and governmental circles there is increasing recognition of the need to combine growth with equity. Nevertheless, many practitioners still appear to follow the theory of growth first and equity later, concentrating on agriculture first, to be followed later (if at all) by health, education, and the rest. Although the need for some agrarian or land tenure reform may be acknowledged, it is usually considered to be too politically "sensitive" to be insisted upon as a prerequisite for rural development. It is also sometimes stated that since the new agricultural technologies are allegedly "scale-neutral," the pattern of land distribution does not really affect agricultural growth. Finally, the concept of self-reliance is rarely integrated into programme objectives or into the process of agrarian change.

5. In this context the commonly held view is that the primary role of technical co-operation is to facilitate the introduction and local application of the new agricultural technologies. Accordingly, technical co-operation should help to establish adaptive research, planning and administrative capacity, strengthen extension, credit and marketing systems, and build institutions that can train government personnel to carry out these tasks. Since raising agricultural productivity usually requires major investments in irrigation and drainage, roads and markets, processing and storage facilities, as well as capital to finance the import of agricultural inputs and machinery and pay for farm credit, it is also the role of technical co-operation to prepare investment feasibility studies, frequently for international lending institutions. To enable government services to reach large numbers of dispersed cultivators technical co-operation helps to form farmers' organizations and service co-operatives for credit, marketing, etc.

6. The trend toward area-based integrated rural development has led to requests for technical co-operation in non-agricultural services for the target populations of the area. As capital assistance has been the major external input, technical inputs have often been provided from the same source and not from UNDP.

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7. There is also the tradition that technical co-operation should be politically neutral and value-free; so most international personnel avoid dealing in the political issues. The job of technical co-operation becomes infinitely more complex when it must take into account historical, cultural and political as well as economic and ecological considerations, all within an "expert's" usual two-year contract. At a minimum, this would mean living for some time among the villagers and knowing the language, a major adjustment of the life style of typical UN personnel. Also the international expert naturally finds his (they are overwhelmingly male) common perspectives and social contacts with his peers in government circles and their private sector colleagues. He tends to see the politics and society of the host country through the eyes of the urbanized civil servant and technician, who themselves tend to have an insufficient regard for the peasantry. He is not sufficiently encouraged to meet academics or researchers, social workers, union leaders, or local leaders, some of whom might have a quite different point of view. National civil servants and technicians who work with foreign technical co-operation agents are likely also to become somewhat cynical about the foreigners' expression of concern for the poor, which contrasts markedly with his living habits, and both sides feel uncomfortable discussing rural development as a social transformation.

8. Relationships between governments and external co-operation agencies are usually restricted to a closed circle within the capital city, in rounds of meetings, reports, seminars, and programming sessions that are concerned with the fate of agrarian society but are far removed from direct contact with its members. Since the true participants in rural development cannot make their point of view known in this context, government and international agencies become convinced that it is they who are causing rural development. By manipulating the few macro controls in their hands -- public investment allocations, fiscal and price policies, delivery of farm inputs, and technical advice -- they err in believing they can control rural development. Failure can be ascribed to the obstinacy, fatalism, illiteracy or apparent irrationality of the peasantry. Even those government officials who, by being stationed at the provincial or district level are better aware of the problems and structure of agrarian society, may not be consulted or involved in the decisions taken in the capital. These observations do not apply to those Third World countries that have altered their social and political structures in favour of the poor, but those countries rarely request rural development technical co-operation.

9. External inputs for government programmes have therefore tended to be directed to filling gaps in technical expertise in order to carry out particular operations or to train government personnel in particular skills. The foreign technician too often arrives with experience from quite different circumstances, which can be even more dangerous in the case of two-to-four week missions of "high-level consultants". The same often applies to technical co-operation staff recruited from the Third World, since they often come from modern enclaves and apply the same analytic tools and assumptions about Third World agrarian societies and development paths.

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Relationships between Agencies, Officials and Peasants

10. Co-ordination between government departments in concepts and actions is enormously complicated by sectoral functionalism. The compartmentalization between technical line ministries and their relationships to the ministries of planning and finance finds a virtual mirror image in the UN system of Specialized Agencies and their relationship to the UNDP Resident Representative in the field. (The World Bank, World Food Programme, and UNICEF are cases apart, since technical co-operation forms a less important part of their operations.)
11. Non-governmental organisations (NGOs) appear to have the greatest success in establishing close ties with rural communities. Moreover, there is relatively little co-ordination between them and either government or the UN and bilateral systems, besides often little or no co-ordination among the NGOs themselves.
12. In theory, external co-operation should be co-ordinated by the government. In practice, the government is not a monolith, and the agencies and line ministries compete among themselves for the largest share of foreign assistance. Furthermore, the UN Specialized Agencies have developed links with the line ministries. UNDP Resident Representatives have a stronger relationship with the Ministries of Planning, Finance and External Affairs and have the legitimate function of assisting the government to co-ordinate technical co-operation activities. For a variety of reasons, however, this function is not always exercised effectively. While it might appear that UNDP, allied with the Planning Ministry, would be in a good position to influence programme co-ordination, the Planning Ministry usually is more interested in the technicalities of plan formulation and control than in the conceptual thrust of programmes which it leaves to the technical ministries.
13. For example, in viewing rural development as a sectoral activity or as agriculture "plus", FAO has come to be treated as the primary agency responsible for rural development within the UN system, and the Ministry of Agriculture accepted as the decisive Ministry. In view of the fact that increased output is a pre-requisite for rural development, such a predominant role for these agencies is understandable. This, however, should not lead to the neglect of other aspects such as basic education, rural health, housing, public works or small industry projects which are equally germane to rural development. For project programming, management, review or evaluation purposes, UNDP Resident Representatives and FAO Country Representatives should also simultaneously involve the Ministries of Health and Social Welfare, Education, Public Works, and Industry, together with the Ministry of Agriculture. In some countries there is a Ministry of Rural Development, but these often have relatively little influence. In others, the Ministry of the Interior or of Local Government may have some control over rural development at the local level, but they are seldom consulted by UN agencies at the central level.

14. Field observations indicate that the UN agencies closest to agrarian society are WFP and UNICEF. In the logistical control of food distribution, WFP works with rural populations and communities and becomes aware of the labour situation and nutritional status in various regions of the country. On the other hand, results are usually judged in terms of physical magnitudes, e.g., kilometres of roads constructed, houses built, terracing established, hectares planted, or number of mouths fed at various age-groups and educational levels. Rather less attention is given to the distribution of benefits between social groups or the creation of self-reliance.

15. UNICEF demonstrates a deep concern with human problems. It makes a conscious attempt to study and assess minimum needs and socio-political factors at the village level, frequently contracting with local or international research bodies to make the assessments. UNICEF makes use of its constitutional and procedural flexibility to assist local non-governmental organizations and to combine capital and technical inputs in innovative ways at the local level. Its staff appears to demonstrate a commitment to visiting, analysing and involving themselves in local-level action in sometimes remote rural areas. Both UNICEF and WFP demonstrate insight into the problems of participation of women and youth in development.

16. The compartmentalization of technical co-operation activities results in competition and ignorance of what each other is doing. Some co-ordination takes place through the UNDP Resident Representatives at the level of the individual UNDP-financed project where inputs from different sources are involved. Joint participation in formulating ideas for the UNDP Country Programme has been inadequate in most cases, although it is actively encouraged by UNDP. There are cases of WFP projects, for example, that would have benefited from external technical co-operation and vice-versa.

17. The co-operation provided by bilateral sources closely reflects the views of their governments and donor aid organisations on rural development, whereas UNDP-financed co-operation is almost entirely field-determined. Resident Representatives are free to express their own views on the subject as representing the UNDP view, without much guidance from Headquarters. In principle, this could mean a healthy bias towards locally formed perspectives rather than global prescriptions, but in practice the UNDP view is not a very informed one because of the lack of preparatory analysis and knowledge of the rural situation in the country.

Programming of UNDP Co-operation for Rural Development and the Evaluation Framework

18. As part of the normal five-year UNDP Country Programmes drawn up jointly by the Government, the Executing Agencies and UNDP, and presented as a government document, the identification and selection of rural development activities is governed by standard procedures. However, the perspectives and method of working described in the previous two sections are more important in determining the composition and content of the Country Programme, than the formal procedural steps of analysis and consultation contained in the UNDP Manual.

19. The UNDP Country Programmes studied in connexion with this report do not specify what is meant by rural development. Under the heading of the "rural development sector" is usually found a set of agricultural development projects with an area-based multi-sectoral composition. Production targets and intentions to improve rural conditions are quoted from national plans, followed by a series of project titles, many of which reflect the momentum, or inertia, of the past. More recent country programmes frequently contain references to "integrated rural development" programmes of the government yet do not usually provide any indication that they are based on an analysis of the rural development process. There is little historical feeling in these documents or description of the social, political and economic structure of agrarian society.

20. Sectoral growth trends and targets are much in evidence, copied from national plans and World Bank economic reports. There is seldom any analysis of problems at the level of agrarian families and communities which require technical co-operation inputs. One of the original reasons for drawing up a country programme was to link these inputs to the real needs of the country, but as far as rural development is concerned, the programming process does not seem to have become more rational or relevant as a result. The main function of the country field missions of the Specialized Agencies (whether financed out of regular programmes or regional project funds) is still to formulate and present project requests to the government for endorsement, and the majority of projects examined under the rural development umbrella have been inspired by an Agency or the UN system rather than by government. A recent tendency has been to eliminate one-man advisory-type projects or long-term, institution-building ones in preference to multi-man, multi-sectoral area-based projects that will have "impact". usually through large capital investment. On the government side, the programming process has been no more encouraging, reflecting often the need of line ministries for **technical** co-operation to fill staff gaps or as a catalyst to justify larger budget allocations for their departments.

21. An examination of the rural development content of current country programmes has not given much guidance in defining a role for technical co-operation. The justifications for projects appear to be frequently personal or bureaucratic, not social or economic or even political in terms of the needs of agrarian society. There is a tendency to produce a similar document for each main class of projects with a fairly standard allocation

of personnel, training provisions and equipment. Such standardization and lack of innovation reflect the fact that projects are rarely designed by officials living in the areas to be affected, but usually by government personnel who may have spent the bulk of their careers in towns, assisted by international personnel who might visit rural areas only occasionally.

22. In fact, a project can be even designed largely in an agency headquarters by individuals who may never have set foot in the country. This alarming situation, however, is increasingly offset by the growing number of projects now designed on a preparatory assistance basis by international personnel who are given several months to become acquainted with the local situation and have the flexibility to use inputs from all sources.

23. Design suffers because UNDP projects are regarded by project personnel almost as self-sufficient entities in which the importance of the international inputs is paramount. Project inputs are not adequately linked conceptually with the institution or government programme which they are meant to support. Little attention is given to the aims and design of the over-all national programme, so that the relationship between the project support and the programme is difficult to determine. The project becomes an end in itself. International components form the main focus, with national inputs often insufficiently emphasized.

24. When the links between the project and the government programme are not sufficiently recognized, the experts often become impatient with their national colleagues for "neglecting" vital project matters when the latter attend to wider programme matters or become occupied with the over-all management of a government institution.

25. This attitude is exacerbated by the one-to-one "counterpart" system. Unless the precise relationship of the project to the programme is specified, these misconceptions will persist, and UNDP-financed projects will continue in an almost competitive situation vis-a-vis government programmes.

26. The programming framework provides a simple hierarchy for the derivation of technical co-operation project objectives and outputs. The country's national plan is at the top of this system, providing growth targets and social objectives which sometimes are taken as the project's long-term objectives. The national plan is disaggregated into sectoral programmes to which projects of technical co-operation provide small supporting inputs. The technical co-operation project's immediate objectives express its expected contribution to programme objectives which in turn contribute to the "development objectives" enunciated in the national plan. The fact that this simplified scheme is applied indiscriminately to all kinds of technical co-operation has unfortunate consequences for evaluation or assessment purposes.

27. The question: "How successful was the UNDP, through the UN system of Agencies, in doing what the governments asked it to do for rural development?" can be assessed at different levels:

a) "Did the UNDP contribution, together with the government inputs, produce the outputs specified at the beginning of the project?"

b) "What was the contribution of the project's output, in combination with other contributions, to the achievement of the programme objectives?"; or "What was the impact of the project on the programme?"

c) "What was the contribution of the project's outputs to the achievement of the development objectives, or to the objectives of the national plan?" However, the question of how successfully UNDP did what was asked of it by the government does not represent an assessment of UNDP's contribution to rural development, since the relevant question would be: "How did UNDP's input contribute to the development of agrarian society in the country?" The paradox is clear. UNDP financing should be "responsive". In practice, the system advocates. Thus, what criteria for judgement should the system employ?

29. It is not difficult to answer (a) above if the outputs are directly related to UNDP inputs and are stated in measurable terms at the project's outset. It is more difficult, however, to answer (b) since the UNDP contribution is usually only a small input whose impact cannot be isolated from other factors. In the case of an agricultural production programme, for instance, it is the cultivators who provide the major contribution to output in terms of land, organisation, labour and finance. The overnment may provide credit for seeds, fertilizer, as well as extension services, and UNDP may provide training for the ~~government~~ extension workers, or help in drawing up the plan for production. How much of the credit can UNDP take for the output increase that may have taken place? The link between the UNDP output and the national plan's objectives is too tenuous for any significant response to question (c). Information about the contribution of other factors is not usually sufficient to be able to assess UNDP's contribution to programme goals. Even if it were available, the financial input from the UN system is generally too small to warrant the kind of expenditure that would be necessary to evaluate ex post its contribution unless a monitoring and evaluation system has been included in the project for this purpose.

29. Whenever possible, however, the following should be examined:

a) The nature of the inputs being provided by UNDP (origin, cost, and quality); the setting in which they are being provided (how far removed from the rural community, to how large an area or number of people); the relevance of the inputs to the setting (in terms of ecological adaptation and capacity for absorption).

b) The techniques being introduced and the assumptions on which they are based (e.g., relevance to the environment and to enhanced self-reliance). What effects are they likely to have on employment? Who will be able to make use of them, and who is likely to directly benefit from their use? How will they help the landless or marginal farmers?

30. These questions may appear to be too ambitious. An attempt, however, should be made to ask them of technical co-operation inputs without reference to the contributions of other sources. They must be based on knowledge of the local circumstances and needs of agrarian society. In certain cases a direct conceptual connection can be established between technical co-operation and that society, which may be more important for the purposes of improving UNDP's contribution than answers in terms of investment and output increases whose effects on rural development cannot be judged directly.

The Desk Review and the Field Survey

31. Approximately 200 UNDP-assisted project documents and files were reviewed to examine the orientation and methodology of a wide variety of projects in different sectors, the comprehensiveness of the background information and output data, and the appraisal and monitoring comments made by UNDP and the Executing Agencies. Projects were selected for their potential impact on rural development. Particular attention was given to projects that did not specify a rural focus in their titles but which could have major relevance for rural development, e.g., in education, health, public infrastructure and small industry.

32. The information available in documents and files tended to be too scant to permit reliable conclusions. The limited background information provided little understanding of the government programmes with which the UNDP project inputs were associated. Project documents revealed a list of "related projects" but the precise nature of potential complementarities and interactions was missing in all cases. Only a few of the project documents specified the geographical area where project activities were to be undertaken, and even fewer described the expected beneficiaries. Most information on project implementation referred exclusively to the quality, timing and delivery of inputs, and the adequacy of the financial and technical counterpart support from the government.

33. The desk review also concluded that most projects with a national or institutional coverage, such as teacher-training or the strengthening of health-delivery systems, make no reference to rural needs, indicating a widespread urban bias. Even many agricultural projects indicated by their work plans a concern limited to strengthening institutional capacity at the central government ministry or department level.

34. Inadequate analysis of links between the project and related efforts can result in the failure to exploit potential complementarities such as shared training facilities, standardization of equipment, the use of highly specialized personnel in more than one project, and to avoid duplication in terms of sectoral or institutional analysis exercises. Worse still, it can result in the adoption of incompatible policies and organizational approaches and competition for, or monopolization of, scarce resources. For example, an artisanal fisheries project might be threatened by a project to promote large-scale mechanized methods. Efforts to create employment in rural industries may be jeopardized by external aid to large-scale

industries manufacturing competitive products (common in textile and footwear). An employment programme might find itself clashing head-on with a farm mechanization programme. On the organizational side, different ministries may be helped by various donors to build-up cadres with overlapping functions, and separate projects within the same ministry may promote incompatible sectoral strategies as has sometimes been the case in education and health.

35. The examination of UNDP project documents related to rural development also highlighted the current confusion regarding the meaning of long-term and immediate objectives, outputs and workplans. It was common to equate long-term with immediate objectives so that the broad development goals of the project and its associated programme (project impact) were missing and replaced mainly by the effects of the project on the associated programme or institution. Thus a long-term objective might be stated in terms of project effects, e.g., to help create an efficient agricultural extension service, and not in the broad developmental terms of the impact of that service on rural communities. Similarly, immediate objectives (project effects) were commonly confused with measurable outputs, and sometimes with elements of the workplan which was often in the nature of a reporting schedule.

36. Lack of consideration of broad development objectives implies that the effect of the project on these (often conflicting) goals has not been carefully analyzed. This suspicion was reinforced by the superficial nature of the workplan. Of course, the details of the work plan have to emerge as the project evolves, but at least the plan should reflect an understanding of the ways in which the methodology and technology being promoted will have a developmental impact on rural society. Level of income generated and its distribution, degree of communal participation in activities, and control of technology introduced depend in part on the approach decided upon. What sort of development and for whom, are questions of fundamental importance which should not simply be left to the prevailing viewpoint within a team assembled to carry out a project. Baseline socio-economic data were usually missing, and in those agricultural projects where outputs were clearly specified, most were related to increased aggregate production without assessing distributional effects.

37. Since the desk review raised more questions concerning the true nature and effectiveness of the projects than it answered, a structured project questionnaire, covering various sectors, was sent to UNDP field offices in all geographical regions. These were supplemented by an analysis of individual project evaluations undertaken by joint UNDP/Agency field missions, as well as by observations made on the field trips undertaken for the study. The questionnaires were designed to reveal, *inter alia*, the strength of project links with related government programmes and institutions, the degree of community involvement, the extent to which a target group concept was followed, as well as to indicate the over-all development impact. Projects were restricted to those directly affecting rural people; the original selection of 150 was enlarged by field personnel to include others considered of particular interest. The questionnaires were completed by UNDP field office staff, together with UN Agency personnel in the case of on-going projects. Resident Representatives were invited to involve national officials

whenever appropriate and feasible. Because of the non-random nature of the sample and the fact that only 60 responses were received, the results of the analyses were interpreted with caution, and no attempt was made to analyze statistically the separate project types based on programme categories.

38. Two-thirds of questionnaire responses defined technical co-operation needs in terms of lack of trained personnel or deficiencies in managerial and planning skills. Projects were seen mainly as filling gaps in Government programmes caused by lack of qualified national personnel. Thus international personnel are often used for well-defined tasks of an executive nature (e.g., writing plan documents, carrying out resource surveys). The training of national colleagues to carry out such tasks, the introduction of new approaches through action-research, or the adaptation of new technology are apt to be relegated to second place. Under conditions of severe skilled manpower shortages this is understandable, although hardly conducive to the acquisition of skills, which should be a primary function of technical co-operation.

39. In contrast to these negative observations, half the projects strongly emphasized training national officials and in almost two-thirds efforts were being made to train rural families and communities. Relationships between national and international staff were generally good, but only about one-third of the projects/programmes were reported as promoting administrative self-reliance among government personnel at the national and local level. The picture on technical self-reliance was somewhat better, as half the projects reported a strong contribution at the national level and rather more at the local level.

40. Most national programmes surveyed emphasized production increases, but tended to neglect the distribution of benefits, the promotion of self-reliance and the increase of rural populations' capacity to participate in their own development, through training, education and organization. Access to productive resources for those without agricultural work or other income opportunities was also generally outside the orbit of such programmes.

41. The nature of the project and programme outputs in the responses also raises doubts about the extent to which a broader concept of development than production increase is being pursued. Outputs are typically given in terms of tasks carried out, e.g., construction of workshops, tree planting or installing drainage facilities, with no indication as to their impact on the various groups of people affected. This is not a criticism of the technical adequacy of the projects. Within the limited terms of their objectives, these projects may be effectively designed. The lack of attention to beneficiaries reflects a general approach to rural development which, for reasons cited earlier, is likely to be inadequate in terms of the needs of the rural poor.

42. Even the goals of increased production pursued by most projects are often not fully achieved because of shortcomings in project design and because of weak counterpart support, delays in recruiting international staff, and late arrival of equipment. In over half of the projects analyzed, the design

did not provide inputs or schedule activities commensurate with the magnitude and complexities of the proposed objectives and outputs. In over one-third of the cases, the project inputs and activities were not realistic in terms of government technical and resource capacity. Although about half the related programmes were considered to make realistic financial assumptions, only about one-third incorporated satisfactory objectives and timetables from the viewpoint of personnel available, and less than a third were realistic in management terms. 1/ Less than one-third of all projects were reported to have had a satisfactory level of technical backstopping from Agency headquarters, while only a slightly larger number considered national involvement in project management and leadership as strong.

43. Further problems are encountered whenever the project site is remote from urban centres, as it is difficult to persuade international staff to accept the complications entailed, and the government often encounters similar problems with national staff. One project dealing with integrated watershed and forest management suffered from both the national director and his international co-director being located in the capital city 700 kms. away from the project site!

1/ Typical of the comments on this issue were the following:

- "However, the target date set for completion did not take into account the immense problems of co-ordination, capital and technical assistance from ten external sources. The programme is expected to be extended another 5 years or more."
- "However, due to lack of technical/managerial staff in the Government to implement its Master Plan, the Government had to go through some organisational change to overcome this constraint, which caused the delay of the implementation of the Master Plan more than a year."
- "The Government personnel and co-operative managerial staff becomes more and more inadequate because of the huge memberships compared to total field staff. (3,000 workers - 1,400,000 members of more than 22,500 associations)."
- "Lack of a senior liaison officer with full delegation at the field headquarters was one of the weak points which largely influenced the activities. Lack of office space, including drawing rooms, laboratory, etc., and lack of labour and cash for operational purposes reduced the work efficiency of the staff tremendously."

44. Three other major constraints emerge from the survey analysis and field visits:

- a) Inadequate knowledge of the local situation.
- b) Lack of involvement of local community organizations.
- c) Inadequate adaptation of technology.

a) Knowledge of the Local Situation

45. Many projects are implemented with only a superficial knowledge of the area and community concerned. Even such basic information as the land tenure system, farming system (interaction of crops and labour needs over time), local power structure and local organizations, is frequently absent. Projects and programmes rarely distinguish between the various social groupings and expected beneficiaries are most often identified as "the rural population", "villagers" or "farm families".

46. Several institution-building projects did not seem to recognize the importance of knowledge of the local community. One project for training entrepreneurs described links with the local community as irrelevant even though this community would presumably form the market for any resulting products. One irrigated rice development project was reported as being "neglectful of urgently felt needs among the people, particularly in the fields of water supply, sanitation, and disease control". Another project was meant to prepare investment projects for an area, but because of the failure to measure crop yield under the traditional system, no estimate of net benefits could be computed. A resettlement project in Africa made assumptions about the aspirations and response to incentives of settlers without reference to what traditionally occurred, or to experience with similar schemes in neighbouring countries. In another country, a similar lack of knowledge about the farming system and household economy of different sizes of farms led to the establishment of tree crops over thousands of hectares, including many holdings which could not possibly be viable because of limited size. The project ignored the possibility of improving the subsistence wheat crop and was not able to persuade farmers' groups to improve the communal grazing lands, even though this was technically straightforward, because the co-operatives formed by the project were viewed mainly as channels for distributing food aid rather than for participatory self-management.

47. Watershed protection and afforestation projects commonly attempted to introduce techniques which are inappropriate in the populated areas in which they are applied. In one country a project was advised to take a completely new approach after finding that a straightforward technical approach of planting trees with a long maturation period simply led to the trees being cut for firewood and destroyed by goats. In another country the approach tended to be limited to reducing erosion rather than to improving the long-term well-being of the local population, in the process of which erosion would be stopped. While the Agency Terminal Report stressed

the importance of understanding farmer motivation and stated that "soil conservation and reforestation per se are not adoptable by the farmers unless they are tied to and integrated with measures satisfying the felt needs for increased production", it admitted that this integrated approach had not received the full attention, since in a situation of restricted resources, it had received a lower priority than straightforward technical approaches to the problem.

b) Community Involvement

48. Partly as a result of lack of knowledge concerning local organisations and leadership, few projects appear to be utilizing the talents and energies of the local population. An agricultural planning and village development project in an Asian country was one of the exceptions in drawing the community into the planning process. This "planning from below" included a survey of the villages involved, group discussions attended by family heads, and intensive dialogues between the village councils and representatives of government departments. A regional project gathered information on the perceptions and problems of rural people through informal residential seminars attended by officials and peasants. Supported by FAO regular funds, the project has now entered a research-cum-action phase in four Asian countries and is concentrating on the problems of the small farmer and the landless in several villages. The approach recognizes the "competition between unequals" and is organizing separate groups to enable poorer farmers and the landless to benefit directly from government services, as well as developing income-earning opportunities not dependent on access to land.

*Among the explanations of the lack of effective dialogue with the rural community were the following:

- "Government reaches rural inhabitants through various other rural programmes. There is no co-ordination between Governments' various rural programmes."
- "Due largely to the rural people's inherent mistrust of the Government."
- "Due to the traditional community-Government barrier. Rural communities are generally known to develop defence mechanisms to ward off external intrusions."
- "Interaction is generated through the media, particularly broadcasting. Otherwise, villagers are still isolated due to lack of transportation and communications facilities."
- "Feudal and authoritative economic and social structure."
- "There is virtually no peasant-Government interaction at the local level. Relations are mostly of authoritarian nature."

49. Only about a third of all programmes were reported to have a level of local involvement and resource contributions which equalled the original government assumptions. About half the responses indicated effective communal participation in implementing programmes, but in only a quarter was participation in project planning effective, and most projects reported that the local community was not strongly involved in evaluation.

50. Projects generally aim to improve government delivery mechanisms and develop technology with insufficient involvement of the communities who will use them. Even if such mechanisms and technology turn out to be appropriate, it is equally important to form receiving mechanisms to utilize them. Thus the irrigated rice production project referred to previously "is now at serious risk because of its failure in the long-term to achieve popular involvement and the successful establishment of institutions in which people can participate". An FAO assessment of a pilot area development project in another African country referred to unresolved management problems, partly due to the fact that the village committees "have not, as was planned, offered the farmers an opportunity to become involved in planning and carrying out agricultural production activities...this role was assumed by the project and its supervised contractors".

51. A similar case in Asia occurred when the local farmers' committee was left out of the planning process. A sociologist had surveyed the local situation but had apparently not used the opportunity to win the confidence of the community and to involve and organize it. Two evaluations of a project in another country stressed the need to work closely with the indigenous social groupings, yet the national project staff continue to have virtually no contact with them, while the international staff concentrate on crop trials and veterinary measures, without involvement of the excellent network of community organizations.

52. The vital role of community participation was endorsed by a recent USAID study of 36 projects affecting small farmers. The major factor determining success (as measured by increased farmer income, agricultural knowledge

*A Typical response, that of an education project in Asia, was the following:

- "Even though the concept of non-formal education is built on learner participation in all the stages, the Government programme was not built on much local involvement. In fact, the constant point of emphasis in the project is to ensure community participation and support. This in turn depends on the co-ordination with other developmental agencies working with similar or related objectives. This is not an easy task in a system where (a) people often expect everything to be given to them by the Government; (b) departments/agencies tend to function in neutral isolation, and (c) mobilisation of local resources and initiative has not become a normal part of developmental activities."

and self-help capability, plus a high probability of the project being self-sustaining) was found to be the resources committed by the small farmers themselves. Similarly, a joint UNICEF/WHO study in 1975 of alternative approaches to meeting basic health needs stressed the importance of the "untapped resources" within communities in the form of facilities, manpower, logistic support and possibly funds. Also, the importance of communal participation in preventive measures because the subject of a subsequent UNICEF/WHO study in 1977 entitled "Community Involvement in Primary Health Care: a study of the process of community motivation and continued participation". Communal commitment of time and physical resources can only be achieved through patient contact and discussion, together with an understanding of the local socio-economic structure and physical constraints.

53. The over-all picture is not, however, without positive aspects. A training institute project in an African country had a settlement component in which the community selected farmers for a rotational farming system within clan lands. A slow build-up of the programme ensured close supervision and a constant flow of information among the community, while allowing settlers to make their own production decisions. An ILO-executed project in comprehensive area development in another African country was based on the formation of pre-co-operatives within a federated structure to give these groups more bargaining potential. A distinctive feature of these groups is the active role played by women. In an Asian country, a UNDP-financed project is supporting a national network of co-operatives for small farmers and fishermen, with membership of over a million and over \$24 million raised in cash; on the other hand, "only on rare occasions are the members given an opportunity to express their needs".

c) Technology Improvement

54. The third major constraint affecting achievement of project objectives is the transfer of technologies without local adaptation. These often show no advantage over local technologies. Even if there is an advantage, it is often nullified by lack of understanding or by resentment of a new idea "parachuted" into an area without previous consultation with the users. There have also been attempts to alter local conditions to suit the new technology, instead of the reverse.

55. In a pilot area project in an African country, technology packages consisting of improved seeds, fertilizer, improved planting techniques, and mechanisation, were introduced for several crops, and credit facilities made available. At the time of the evaluation, there was doubt about the viability of the packages because of their complexity and cost. In retrospect, the local extension workers believe that the innovations represented too great a jump from traditional technology and should have been introduced singly. The report noted that the packages produced higher yields than the local system but concluded that "there is an apparent trade-off in terms of increasing aggregate output quickly and building farmer capabilities and understanding to sustain the new production practices."

56. Another African project demonstrates an effective approach which is low-cost and could easily be self-sustaining. Ox-ploughs are made within the project from old lorry springs and steel rails from abandoned mines,

while lorry axles and local wood are used for ox-carts. A brisk local demand covers the cost and raises the possibility of some of the workshop employees setting up their own business. A UNDP/ILO-assisted project in village technology elsewhere in Africa was also impressive, as the technology was determined by the cash constraints and the skills of local peasants and artisans. Local materials were used to produce carts and weeders which reduced drudgery and labour bottlenecks, while maintenance work on equipment could be performed in the village. In a Latin American country, a scheme produces low cost tools and equipment for settlers in a sparsely populated sub-tropical area. The technology is designed with the aid of engineers from a national university. Unlike the African project just mentioned, the equipment may incorporate the latest materials and techniques in vital components such as bearings, in short combining the best of the old and the new to produce effective, cheap, rugged, easily maintained equipment. UNDP is now financing the dissemination of these ideas to other countries.

Chapter III - Suggestions for More Effective Technical Co-operation in Rural Development

Introduction

1. Government strategies and programme goals naturally guide the planning of technical co-operation and, to some extent, determine the range of interventions which are possible. Similarly, the nature and location of capital investments related to rural development strongly influence the demand for technical co-operation.
2. In the past, technical co-operation played the largely supplementary role of providing trained manpower to run government programmes and those stemming directly from external capital aid. As a reservoir of technical and scientific manpower has evolved in many Third World countries, this technical co-operation role has become less relevant and resentment has built up against what many trained nationals see as an expensive duplication of their rightful functions. As a result, technical co-operation administrators are now beginning to explore complementary activities which not only support government programmes but improve their cost-effectiveness in terms of achieving their immediate objectives and their longer-term development goals.
3. The scope for complementary activities exists mainly because of the necessary pre-occupation of government agencies with meeting planned targets within generally inflexible and limited budgets and a relatively fixed complement of staffing and skills. These conditions are not conducive, however, to experimentation with organisations and techniques of meeting existing targets nor to the examination of these targets and the questioning of their adequacy in relation to broader development goals. The emphasis thus tends to be on orthodox approaches which are familiar and generally accepted. The status quo is reinforced by the fact that research budgets and staffing are generally inadequate in most government agencies.

4. Technical co-operation is often called upon to support development activities initiated with food and capital aid or by government agencies with inadequate resources, e.g., food-aided public works schemes and large-scale irrigation programmes. This deficiency in technical support occurs even in countries with a reasonable technical capability but where inter-ministerial co-ordination is weak or where shifts in government policy create demands for skills which take time to develop, e.g., when radical land reform is legislated or where there is a switch to a primary health care system. Although this type of technical co-operation is more akin to traditional "gap filling", it could be important in supporting structural changes in development strategy.

5. In rural development the main role for technical co-operation would seem to be that of planning and executing interventions which would not only provide governments with alternative approaches to meeting stated targets but also generate information on the adequacy of programme outputs and immediate objectives for achieving broader development goals. In the process, greater focus would be brought to bear on programme linkages and assumptions.

6. Clearly, research and experimentation by "ivory tower" specialists which end up in unread reports is not needed. What is needed are investigations under real conditions of outstanding problems and constraints in the improvement of the lives of rural people. To the extent possible investigations should be carried out in the context of existing programmes, involving local people and national institutions. Many of the problem areas, technical, organisational and attitudinal, have been already highlighted, and a body of experience exists within Third World countries which, if effectively disseminated, could be of relevance to others struggling with similar problems.

7. Technical co-operation can put government personnel in touch with current thinking on such issues as the drawbacks of over-centralized administration, ways of adapting institutions to serve the poorer groups in rural society, technology which is suited to small farmers, non-farm employment opportunities, and systems approaches to programme planning. Experience with such issues is found throughout the Third World but is unlikely to come to the notice of civil servants in the ordinary course of events. Technical co-operation agencies have the advantage of being able to concentrate resources on the process of identifying, evolving and adapting technologies to answer specific rural development needs. They are able to exploit the potential catalytic role of the outsider. Their personnel can often move between and within ministries with less constraint than national personnel. Their temporary status serves as a badge of neutrality and enables them to play a co-ordinating role. The broad viewpoint of the outsider in terms of inter-sectoral and centre-periphery relationships can also be of great value.

8. At the community level, removed from longstanding feuds among local groups, the skilful adviser can foster co-operation without compromising himself or causing people to lose face. He is likely to be less subject to local prejudices about what is or is not feasible, and he may perceive opportunities hitherto obscured from local awareness by long habit.

Improvements in Technical Co-operation Support to Government Programmes

Agricultural Service Programmes

9. This group of programmes is highly interdependent, and technical co-operation activities must take into account the necessary linkages. Extension programmes, for example, to be fully useful are dependent upon availability of inputs and marketing. This interdependence calls for co-ordination between separate government agencies which may be receiving assistance from different donors, and this often provides an opportunity for technical co-operation initiatives.

10. Extension services in developed countries rely on an intensive relationship between trained extension agents and farmers. On the tiny family farms typical of Third World countries, however, such an approach is wasteful of scarce, skilled manpower, and there is a need to experiment with methods of reaching larger groups of farmers through volunteer contact agents or para-professionals. There is also a role for technical co-operation in testing different approaches in reaching poorer groups with advice and technical inputs, involving women in the process of improving agriculture, involving local people in the design of training programmes, and finding better methods of monitoring and motivating extension agents to improve their service to the community.

11. Agricultural research is still largely carried out on large, mechanized farms striving for a technical optimum, as opposed to economic viability under conditions of competition for limited family labour. In developed countries such conditions approximate actual farming conditions, yet in most Third World countries conditions differ markedly with respect to farm size, husbandry techniques, implements used, input levels and production objectives. Although the flow of technology consequently has limited application to real farm conditions, scientists rarely venture off the experimental station to talk with farmers and observe their conditions. Technical co-operation can play an invaluable role in changing these attitudes through training which stresses economic and social factors and farm management considerations, and by demonstrating the academic "respectability" of the changed approach. To be relevant research should use the insights of local farmers and answer their problems; this involves contact with farmers' groups and the participation of extension personnel. Within the past decade or so, the CGIAR-supported network of International Agricultural Research Institutes has done much to develop a relevant research approach. Technical co-operation should promote use of these institutes as a source of experience, improved crop varieties and technology, and above all methodology, for farm-based and system-based adaptive research, as well as a training resource.

12. Medium-term credit may often be important to very small farmers, and systems to provide small credits under minimum security conditions may be non-existent. External assistance could help through guarantees to banks for a trial period, provision of revolving funds, or organization of credit groups. It can also facilitate pilot programmes for experimenting with production-cum-consumption credit in order to improve conditions of chronic debt; and in linking credit with production opportunities for disadvantaged groups to ensure that it is not simply a type of welfare in the form of

written-off loans. Outside agencies can test different credit approaches. They can muster resources and act as a de facto guarantor because they are often more imaginative than banks and they are relatively immune to the pressures of privileged merchants and money-lenders who might make trouble for innovating national officials.

13. Small-scale farmer marketing programmes experience difficulties with the small quantities and uneven flow of individual farmer outputs and therefore must devise cheap ways of bulking the produce of groups of farmers. Without costly state support marketing groups or marketing co-operatives succeed only if their members are properly trained. Technical co-operation could help to prepare trainers and arrange study tours to countries carrying out similar programmes. Experience in storage and processing methods under similar conditions in other countries could be made available through technical co-operation. Methods of reducing the cost of purchased inputs to small farmers could also be tested within the context of production programmes, e.g., use of small retailers, communal nurseries and bulk buying groups.

Agricultural Commodity Programmes

14. These programmes are dependent upon a co-ordinated programme of agricultural services. Technical co-operation activities can be most effective in the early experimental phases where the technical package and delivery mechanisms are being tested under field conditions and a high level of co-ordination between agricultural services is required. The capacity to conduct technical and economic studies and also maintain close relations with co-operating farmers may not be present in any one service. The welding together of such capacity needs on-the-job training by experienced workers made available by outside agencies at the pilot stage. Alternatively, existing capacity may be present in national universities, and technical co-operation resources might be used to finance this potential national input.

Area Programmes

15. In the case of specific area programmes, a systems approach to farm development is paramount, and training of natural staff in farm planning and management methods is often needed. In the case of some donor-initiated programmes in deprived areas, technical co-operation may be necessary because of an inability to attract national staff at Government rates of pay, and technical inputs may be a vital complement to capital assistance. This type of programme, when sponsored mainly by the national Government, is particularly vulnerable to weak links with the central ministries. This may require the designation of co-ordinating mechanisms as part of the project and the stationing of a technician in the central ministry.

Land Reform and Settlement Programmes

16. Land reform and consolidation programmes provide challenge and opportunity for technical co-operation, as they often involve demand for large-scale training and planning activities which give rise to the need for supplementing national manpower on a relatively large scale. Previous experience of this nature has provided insights into how such situations can best be handled, and it is this experience plus the ability to concentrate the required expertise that make technical co-operation so potentially valuable.

17. Settlement programmes are usually associated with large inputs of external capital aid, but technical co-operation is often needed in planning the co-ordination of services and the phasing of inputs, as well as organizing settler training, local farmer organizations, and health services. Technical co-operation is also used to prepare investment projects and to advise on the optimal degree of government support to settlement as opposed to reliance on spontaneous migration. Such programmes are often sited in areas where government services are minimal and recruitment problems serious, so that temporary "gap filling" by expatriate technicians may be necessary. More important, technical co-operation can provide the opportunity to conceive a particular settlement programme within a context of national and regional development and infrastructure. It can thus act as a safeguard against excessive resource commitment aimed at rapidly transforming settlements into smoothly running communities.

Public Works Programmes

18. Focussing on the low-income unemployed as the principal target group, public works programmes might be perceived by landowners, traders, contractors or others as a threat to their interests or as an opportunity to improve their own situation. Such programmes are often temporary relief efforts rather than lasting development contributions. Since they are often administered by ministries with few technical staff, technical co-operation can improve the quality of the work performed through direct injections of expertise, improved co-ordination with technical ministries, and the training of supervisors.

19. Planning public works programmes may contribute to an over-all effort to promote broad-based, rural development. This would involve training efforts in the central and regional planning cells of the Ministry of Planning and the building-up of planning and evaluation capacity within Ministries of Relief and Rehabilitation and Departments of Labour. Plans are realistic only if based upon an understanding of socio-cultural and other constraints. Technical co-operation resources should be used to finance local research organizations and universities which, independent of government ties, investigate these problems.

Community and Group Programmes

20. Programmes involving group action call for training and education of large numbers of people, starting with functional literary skills, so that communities can more readily utilize government technical services and members of co-operatives are able to play a more active role in the business decisions of their societies. An understanding of the principles of group action (social interactions, factions, cultural traits and beliefs, attitudes to change, collective goods, functional identity, optional group size) is necessary for government field workers to guide such programmes successfully. This calls for basic reorientation and retraining efforts in which a technical co-operation element could be effective in providing scarce training skills and experience.

21. Community development programmes depend upon the ability of volunteers and government field agents to involve communities in the process of gathering information and planning, thus identifying the priority needs of the community within the context of its resources. Responsible communal planning requires much training and a gradual build-up of experience. It implies decentralized authority and local knowledge of available government services and resources. Thus, the community development approach is complex and successful experiences are rare. Technical co-operation can make these experiences known to planners and arrange for the exchange of officials so that alternative approaches can be studied at first hand. Co-operative programmes, involving business management and accountancy training developed in donor countries, have been criticized for increasing the disparity of income, and several governments are beginning to experiment with ways of helping the poorer rural groups through special co-operative societies and credit unions. Technical co-operation projects could concentrate on these new approaches and ensure inter-ministerial co-operation with the design of the project.

Non-Formal Education Programmes

22. Ministries of Education usually give priority to formal education which consumes most of their resources, and other ministries involved in training activities often lack the necessary expertise to support non-formal education. Even within the sphere of non-formal education, the accent has been on training policy-makers, administrators and field technicians rather than the rural population. Training of government officials tends to be narrowly technical, theoretical, and removed from field realities. Fresh thinking on curriculum content could be introduced through technical co-operation as long as international personnel can demonstrate a familiarity with innovative approaches under similar conditions. Regional networks of training institutions could be financed to spread innovations such as combined training, field research and action programmes. There is also scope for communications improvements along lines which have been tried and tested in other countries. As vocational training efforts have often led to an exodus of trained youth to urban areas, a more careful alignment of training courses with employment opportunities and rural skill needs is essential.

23. A considerable shift in the style and emphasis of technical co-operation is needed away from conventional models developed under quite different conditions and towards helping countries to evolve their own models to fit their circumstances. There should be less emphasis on pilot projects isolated from government programmes and more on experimentation with new approaches within existing programmes.

Rural Health Programmes

24. WHO has described the prerequisites of a smoothly functioning rural health programme as inter alia, "productivity and sufficient resources for people to eat and be educated; a sense of community responsibility and involvement; a functioning community organization; self-sufficiency in all important matters, and a reliance on outside resources only for emergencies". An Agency review of 10 successful approaches to rural health care noted that all were linked with the indigenous system or attempted to incorporate the same social qualities of that system; that all involved the formation, reinforcement or recognition of a local community organization; and that all used primary health care workers who did not fit into the usual category of doctors and nurses, but were frequently villagers selected by the community and trained locally for a period as short as 3-4 months. To many people in the health field, however, these ideas are not accepted, but their promotion by both WHO and UNICEF under the general heading of "primary health care" has begun to overcome this resistance.

25. "The worldwide conservatism in the health profession, expressed as a resistance and indifference to primary health care, will not be changed through technical co-operation as practised traditionally. A far more 'political' orientation will be required, one which is aimed at reorienting the prevailing approach to health promotion and health care delivery. To achieve this, a promotional campaign is needed to sensitize key leaders at all levels to the fact that alternative possibilities exist which, suitably adapted, could lead to a significant improvement in the health of the people. Exposure to such alternatives, which may already exist within the country, will be encouraged using all means of communication: site-visits, workshops, films, press and radio exposure, etc. Also, experimental programmes could be advocated which exemplify different possible adaptations of the PHC approach. With the rise of a more progressive outlook on health, it could be hoped that the traditional type of technical assistance in the health sector - wedded to supporting orthodox, curative approaches - may gradually diminish."

Overall National Planning

26. Technical co-operation has done much to establish self-reliant planning institutions and to formulate sound economic and social policies in a very large number of countries. The emphasis in such projects has been more on methodological aspects of planning than on their policy content, and even when the latter was stressed it was concerned more with output maximization, industrialization, import substitution and creation of growth centres in urban areas than with increasing the productivity and output of the rural poor and meeting their basic health,

education and other needs. To ensure that national policies at least do not work against the implementation of rural development activities at local level is sufficiently important to warrant a new emphasis on technical co-operation at national planning level in order to support rural development programmes in the field. Advisers in rural development strategies can help the government clarify its own policy structure for rural development. Among the types of activities which could be foreseen are assistance in undertaking inventories of ongoing rural development related activities and their relationship with sectoral and inter-sectoral development objectives and projects, and assisting the government to define closer relationships between international economic policies (such as exchange rates, commodity pricing, import policy and the like) which affect rural development but which are frequently not considered in that context. Also technical co-operation at the national level can help set the basis for "planning from below" by assisting in development of institutional arrangements which allow for the necessary flow of information from the bottom up.

27. In addition to direct advisory services to national planning authorities concerned with rural development, assistance can be foreseen on national and regional basis for the training of national planning officials in the area of rural development methodologies as it is a new and emerging substantive concern of planners.

Regional Planning for Rural Development

28. To link the community level with national policies, there is frequently the need for regional planning and co-ordination in order to translate national policies into their spatial dimensions and to aggregate the planning requirements generated at the local level. However, regional planning like national planning has often had an urban bias through the growth centre approach and its linkages with town planning. The need therefore exists, to improve the institutional structure of regional planning in order to more effectively integrate national and local levels of action. This would require assistance in determining institutional arrangements which can facilitate this process and the training of national officials in that combination of social and economic planning in terms of a spatial dimension which characterizes regional planning methodologies.

Avoidance of Negative Effects

29. As important as maximizing the beneficial effects of technical co-operation are measures which prevent negative effects. Education planners can guard against measures which, because of their cost, benefit only a small percentage of the population. Although it may not be possible to educate everyone in the short-run, it is important to safeguard against attitudes which discriminate against the uneducated, manual work, and practical learning. The education needs of women and girls need to be emphasized, and educators need to think of non-formal and adult education as a positive nation-building effort and not merely as an inferior way to learn to read and write.

30. Technical co-operation efforts should strive to avoid reinforcing the curative, urban bias of most health services. In allocating funds hard questions should be asked about the comparative benefits of programmes requiring expensive equipment as opposed to programmes of primary health care. Environmental concerns such as the

use of toxic chemicals in agricultural schemes should also be carefully monitored.

31. Agricultural assistance must weigh the benefits of aggregate production increases against possible negative consequences on employment, income disparities and the pressure on land prices and tenancy arrangements. Mechanized equipment must be introduced with care because of possible negative employment consequences on particular rural groups such as the landless (farm labouring) or women (threshing, harvesting). Marine fisheries activities which encourage large trawlers must ensure that artisanal fishermen are not going to be adversely affected, as also is the case in encouraging large-scale poultry or pig production, beef feedlots and large dairy units. Technical co-operation to promote the development of co-operatives has sometimes led to the advancement of privileged groups which restrict the benefits of membership to titled landholders. Credit co-operatives also commonly lend to larger farmers who in turn often relend at higher rates to those less fortunate than themselves. Donor agencies concerned with public works schemes often seem to be unaware of the coercion which can accompany the activities they are financing and the unearned advantages which often accrue to a few fortunate members of the community in which the scheme takes place. Such circumstances may call for government policy changes, but the socio-economic impact needs to be pointed out at every opportunity and alternatives suggested.

32. In the past technical co-operation activities have tended to encourage the expansion of large-scale industries, which have been detrimental to rural employment or to small industry expansion. Industry development should not be synonymous with "urban".

33. Macro-planning assistance which promotes industry-led growth and concentrates mainly upon aggregate production effects can cause myriad negative consequences. Sectoral planning teams have it in their power to promote equally retrogressive policies in terms of rural development. Thus, particularly in planning acts of omission should be as vigorously avoided as acts of commission.

Technical Co-operation among Developing Countries

34. Programmes that focus on rural development defined in terms of reducing inequities and improving the well-being of the rural poor necessarily involve national and local political sensitivities. They are also based on the fact that equitable and self-reliant development at the local level is largely an indigenous, self-generating process calling for a high level of community participation. For these reasons, external intervention along traditional technical co-operation lines may be inappropriate, even suspect, and its scope therefore quite limited. If it implies meddling in internal affairs, technical co-operation is clearly unacceptable. If it is rendered in a manner which is not completely flexible as regards local recruitment, procurement and local cost financing to the maximum extent feasible, then technical co-operation can be counter-productive, in fact discouraging greater self-reliance.

35. Technical Co-operation among Developing Countries (TCDC), however, may be a form of co-operation more politically acceptable and more compatible with the underlying principles of indigenous rural development. The fact that experience in rural development defined in these terms is largely to be found only in the developing countries themselves and not in the industrialized world suggests that the sharing of this experience along TCDC lines may be a more effective means than traditional technical co-operation in supporting what is essentially an autonomous process.

A New Emphasis for Technical Co-operation

Reasons for a Revised Approach

36. Among the most persuasive evidence that top-down, paternalistic development processes are less effective than efforts which involve the community is the 16-country comparative analysis of Asian experience by the Rural Development Committee at Cornell University. This study found success in terms of both agricultural productivity and social welfare measures to be strongly correlated with effective systems of participatory organizations linking rural communities to national centres of decision-making and implementation. Additional evidence is furnished by a study by Development Alternatives, Inc. for USAID of 36 rural development projects in 11 African and Latin American countries. This report showed a clear connexion between project success and small farmer involvement in decision-making and in commitment of resources to the project. This conclusion is recognized in recent statements by several international bodies regarding community involvement and concomitant decentralization of administrative authority (World Bank, 1975; ILO, 1976; UNICEF, 1976; WHO, 1975).

37. A delicate course must be steered in advocating greater community participation in the development process, recognizing that it is not simply provision of "voluntary" labour for government projects but involved participation in decision-making (on what should be done, implementation and resource contributions, benefit sharing and evaluation). At one extreme there are the proponents of the "paternalistic approach", which assumes people are passive and fatalistic, incapable of initiative in improving their lives; and at the other are those of the "populistic approach", which assumes that all people are vitally interested in change and can transform their communities if only the bureaucrats and politicians would leave them alone. The truth lies somewhere in between, as each community is heterogeneous, some people have little interest in change, others stand to lose power and influence, while others are eager for guidance and chances to improve their lot. Despite these differences, there is general agreement that "the involvement of the rural poor in making decisions on development efforts which affect them and the contribution of their resources to development activities, as well as the assurance that the poor in fact benefit from interventions intended to help them, are essential to rural development".

38. The mounting evidence for decentralization and participation, for greater self-reliance at the community level has had little effect on technical co-operation activities which continue to be directed to supporting centralized, top-down activities. There should be a shift in emphasis on the part of governments interested in rural development. There can be no single model, however, of how to achieve a measure of participation and decentralization because of the wide range of conditions met in the field. In addition, there is little practical experience to serve as a pattern and while it is possible to isolate the factors involved, their interaction and phasing is not understood with precision. The situation is further complicated by the peripheral role of technical co-operation, but the very lack of knowledge makes the potential for action-research and experimentation financed by technical co-operation extremely important.

39. Three major areas for technical co-operation to stimulate the attainment of active communal participation have been identified:

a) Research and development activities which involve local people in the identification of needs and the development of new technologies.

b) Training and education activities which give an impetus to communal actions and prepare people for these actions by developing the necessary skills. This type of training is meant to lead directly to development activities.

c) Planning activities which include decisions during implementation, the dispersal of benefits, and the monitoring and evaluation of projects undertaken. As governmental planning and support must be co-ordinated with these efforts, technical co-operation should also focus on improving the governmental administrative structure and ability to respond to new demands.

40. It is important to experiment in field situations with different organizational approaches to these three areas to determine the roles of each. Whether research and development groups should have the same membership as training groups? How senior and exclusive should planning groups be or should the whole community participate? What is the extent of group overlap? How do government officials from various ministries participate in these predominantly multi-disciplinary sessions? In addition, there are questions related to group membership and task specialities (e.g., volunteer trainers), attendance at various types of meetings, leadership, control and discipline, contacting government services and lobbying support, responsibility for horizontal and vertical group links.

Technology and Participatory Research

41. More is known about the dangers and distortions accompanying the indiscriminate transfer of advanced technology to the contrasting resource situations and socio-cultural conditions of the Third World countries than about actual technologies which would be helpful in the development process. Externally generated technology cannot simply be "plugged-in" to a new situation, yet there is little experience in encouraging indigenous systems of innovation. By building on the concept of rural development as a total process, however, and through the analysis of current effects of technological changes or development, it is possible to specify the purposes and characteristics of desirable technologies and suggest ways in which technical co-operation can be a positive influence.

42. Technology has generally been thought of as a means of increasing production through new or improved physical inputs. The concept has been widened to include the institutional support factors (software) necessary for the successful use of the technical package (hardware). In rural development, attention is currently focussed on ways of increasing agricultural production through expanded volume and quality of output and by improved processing and storage techniques. Since the growing numbers of the landless poor cannot benefit directly from this production increase, non-agricultural production technologies suited to rural areas warrant higher priority than they currently receive. In addition to increased production, the other important human needs of education, health services and adequate shelter form legitimate areas for the application of new technology. Innovative institutional arrangements will be more important in these areas than the actual hardware.

43. The characteristics to be introduced into the technology flow from the new concept of development. Technology should be available to the majority of the rural community and should be understood and controlled by the users. Production or other benefits should not be at the expense of the net employment situation or the physical

environment. Broad participation in the use of a technology can be gained if local materials are used, if the technology is simple and reliable, and if it does not represent too great a departure from the technology currently in use. Some technologies respond to these criteria intrinsically whereas others represent a move away from self-reliance, greater production or better amenities being gained at the cost of self-reliance. The high-yielding hybrids (HYVS) of wheat, maize and rice are an example of the latter. They have benefitted communities with optimal water control conditions and access to chemical fertilizers, and have set in motion social processes and business practices which could lead to a worsening employment situation in some areas. Tested local varieties which thrive under natural rainfall conditions and gain their nutrients under existing soil conditions, from organic manures or rotational cropping with legumes and which have disease and pest resistance bred into them and produce seed for the next planting season, would fit better the technological requirements of a rural development "process". Such a move to a selective, more self-reliant, technology has not yet been explored sufficiently.

44. Of the quarter of a million species of plants known to man, almost 3,000 species have been utilized in some way, but only about 150 of them have been extensively cultivated. There is mounting evidence that vegetables are the most neglected group of crops in relation to their potential. They lend themselves to labour intensive production and produce larger quantities of nutrients per unit of land/year. They are therefore suited to cultivation by the smallest farmers. Small animals and fish culture are more promising in terms of the landless. Goats for example, can be grazed on roadside grasses and forage trees, and neglected ponds and irrigation dams may be used for raising carp, tilapia and other fish. Improved animals, better techniques of breeding, husbandry and feeding and improved fish culture technology could be of great value to landless people as little infrastructural investment is required.

45. With respect to energy, much of the technology currently available is more suited to developed countries, where auxiliary solar heating is now becoming economic for domestic dwellings and methane production on large dairy farms and feedlots appears to be a proposition worth considering. Under Third World conditions such technologies are often too expensive because of scale problems or technical difficulties. Methane gas converters using cow dung can be built but need 4-5 cows to operate and are thus suited to larger farmers. Attempts to produce methane from water hyacinth have so far been unsuccessful although composting should be a welcome source of organic fertilizer.

46. Solar water pumps developed in Senegal are being used for irrigation schemes in Mexico. They are still expensive relative to diesel pumps but cost reduction of as much as 80% have been projected for large outputs. Windmill-driven pumps have also proved of great interest and have been combined with solar distillation units to produce pure drinking water in areas of saline groundwater. Animal-power remains important throughout much of the world, and pilot schemes have shown the potential for producing improved ox-equipment locally. Where animals are in short supply, farms too small or disease conditions severe, improved hand-tools can improve productivity tremendously. Relatively simple auxiliary equipment driven by pedal energy using a modified bicycle can power simple irrigation systems, grinding wheels, grain mills, lathes and potters' wheels. Because fuel for cooking is the most pressing energy need throughout the Third World, new ways of establishing village woodlots, experimenting with mixed tree planting and new thinning procedures, are needed. Forestry technology related to improved forage, growing of fruits and erosion control also has an important part to play in rural development.

47. Improved small-scale production techniques for everyday needs, such as clothing, housing and domestic utensils, could lead to greater self-reliance. Labour-intensive employment would also expand in rural areas as locally-produced goods begin to compete with urban manufactured goods in price and quality. Even in the case of more sophisticated equipment, such as rotary tillers and diesel pumps, numerous instances exist of village artisans successfully manufacturing and maintaining them.

48. Improvements in education and health technology are closely connected to more effective organizational arrangements, but there is considerable scope for improving educational techniques by using simple, inexpensive equipment. The potential of herbal medicines and drugs has still not been fully realized by the medical profession, and new, simple technologies for purifying and storing water may play an important part in raising health standards.

49. Improved technology can help to improve the life of rural women in many areas: food processing (grinders, canning), cooking (improved stoves, pressure cookers, solar cookers), washing (simple manual clothes washers, solar hot water, charcoal irons), food storage (coolers, grain stores), water supply (pumps, wells, filters, evaporators), small-scale or cottage industry (weaving, spinning, silk-making, tie-dyeing, ceramics).

50. Most people now agree that many types of sophisticated technology are not appropriate to the conditions of many Third World countries. Developed countries are not rich because they use certain technologies; they use these technologies because they are rich. Poorer countries have no reason to use them. Their resource situation is very different. They find themselves, however, without the research and development facilities needed to develop the appropriate technology, a deficiency which presents a challenge and an opportunity for technical co-operation.

51. The time is ripe, therefore, for a shift in emphasis from research in developed countries on behalf of Third World countries to improving the direction and content of indigenous technological research. This implies a change in technical co-operation from helping governments to acquire and use new or obsolete technologies originating in industrialized nations, to helping them to build their own research capacity. Technical co-operation can also persuade scientists that the software aspect of rural technology is at least as important as the hardware, and that to develop this they must first learn more about field-level realities.

52. In agriculture, for example, past research has depended heavily on demonstrating innovations developed in research laboratories and agricultural experimental stations. Supervised field trials were carried out to ensure that the innovations stood up to local climatic and soil conditions, but this aspect was subsidiary to the demonstrations. Research concentrated on yield increases with relative neglect of other characteristics (keeping quality, palatability, vigour, disease resistance, drought resistance, etc.) and tended to be based on a single commodity rather than a farming system. Agricultural economists calculate economically optimal fertilizer inputs but rarely look at opportunity cost aspects of the research (i.e., alternative uses within the farm system for the resources used). Behavioural scientists, when involved at all, have been simply used as interpreters of traditional culture. The farmer, his wife and family are left out of the picture as it is assumed that they will adopt innovations that are effectively demonstrated. Since experience has shown that adoption often proceeds slowly, the behavioural scientist has often been called on to reveal the non-rational elements of peasant culture that account for resistance to change.

53. The emerging new approach assumes that peasants are quite prepared for changes which they perceive to be advantageous. It calls for exploratory field research to discover what the rural people are doing in their farming activities and why; and to chart the different physical micro-environments, marketing and storage problems and input supply difficulties. After discovering, by observation and discussion with rural people, the factors limiting increased production, it becomes the responsibility of scientists, planners and farmers to work out a programme to overcome them, starting with current practices (mixed cropping, broadcast planting, etc.) and not from the monocropping, line planting, mechanized viewpoint of the research station. This implies a new look at plant complementarities and their effects on yields, pests and disease, as well as on rotations and micro-environments. Plant and behavioural scientists would work jointly with farmers as active participants in the decision-making process. This type of "demand oriented" research also requires an effective and inclusive rural local organization. Otherwise, research continues to serve mostly the needs of larger farmers and commercial processors as it has in the past.

54. One of the chief objectives of this approach is to work out a system whereby the needs of many groups can be included in the total research effort. Several alternative programmes will result as problems and solutions are identified, as costs and potential benefits are jointly assessed and choices are made. (More than one alternative might be chosen in order to satisfy the interests of different groups as, e.g., the landless will have different research interests.) Work plans will then be jointly agreed for farmers (e.g., testing, observing, reporting, suggesting) and professionals (breeding, laboratory work, etc.) and a monitoring process devised as survey and planning proceed to research implementation activities.

55. This model is revolutionary as it is fundamentally "bottom-up" and at the same time a total approach involving the whole farm system. In addition to farmers and research scientists, it involves the related service programmes of credit, marketing and extension. A similar example could be constructed for energy or small-industry technology which should be integrated with agriculture in this model due to existing close inter-dependencies and input/output relationship. For this approach to be successfully applied, a fundamental shift in government policy would usually have to take place, calling for appropriate changes in the operations of government agencies. Technical co-operation could serve as a catalyst in the shape of area-specific agricultural schemes with outside scientists and planners to study their progress. The approach which rests on the community working with government services and integrating their efforts is consonant with the functional literacy and primary health care approaches as well as with efforts to improve community infrastructure. It would therefore be logical to incorporate such elements into comprehensive area development (IRD) programmes, many of which receive technical co-operation inputs.

56. Existing intermediate technologies that may be germane could be provided through technical co-operation. The Federal Republic of Germany has established a research unit within their technical co-operation agency which deals exclusively with technology adaptation. In addition to supporting networks or institutions working on Third World technological problems, developed countries could support the development of repositories of information, the circulation of handbooks, and the

strengthening of technical enquiry services. Technical co-operation could also assist national institutions to prepare systematic inventories of existing stocks of traditional technology.

57. The CGIAR network of international research stations is in the process of fully applying the new model. Strengthening links between the network and national institutions will have a positive effect on the thinking of Third World scientists who may be worried about professional standards, since the excellence of the CGIAR staff is universally recognized.

Training and Education Support for Community Services

58. The concept of rural development in this report recognizes the development potential of traditional technology, skills and communal organizations. At the same time it recognizes that an external impetus in the form of new technology, financial and technical support, is often needed to stimulate the process of change in the desired direction. In order to utilize these inputs effectively, local people need to be aware of alternatives and equipped with the skills to make best use of them. Unfortunately, present education systems do not usually prepare people for this responsibility. Similarly, non-formal functional education has tended to stress literacy skills per se, and functional skills have not been integrated into the production system. Non-formal vocational efforts have generally been limited to larger farmers in the case of agriculture and to primary school leavers in the case of non-farm, artisanal skills. These latter courses have only involved small numbers of trainees, have often been poorly related to job opportunities, and have suffered from a lack of follow-up. Efforts have been made to overcome these weaknesses, but non-formal programmes continue to reach only thousands when the need is to reach millions. A massive non-formal education effort is needed within the context of a new rural learning system combining formal and non-formal components and allowing easy transfer from one type to another. It should be relevant and adaptable to the participants' lives and changing needs and accessible to motivated learners of any age or sex. It should help people acquire technical skills that can directly improve the quality of life in the village. It should develop people's capacity to improve building materials, assure a safe water supply, keep the electric water pump in operation, construct simple farm implements, provide simple medical services, and so forth. Since current formal methods are reaching so few yet still constitute a strain on national budgets, education for the majority will initially have to be largely non-formal. To keep costs low, it will have to take place in existing or self-help structures in the villages and outside of institution-based instruction. Large numbers of trainers will have to be found among the local population, thus drawing more on indigenous information and understanding.

59. The main characteristics of the participatory concept of non-formal training programmes suggested have been summarized as follows:

a) Problem orientation: Training will not be dependent on a recital of government development plans and exhortations for help in implementing them. This type of consciousness-raising has little effect unless plans are based on a thorough

understanding of the trainees' values, aspirations and immediate problems. The church has exhorted people in large numbers "not to sin for some 2,000 years without any notable results". Trainees are initially invited to discuss their problems so as to build the group's confidence to contribute something to their solution as a first step towards motivation and learning of skills.

b) Contribution to course design: The direct transmission of skills and knowledge following an abstract model is avoided, and trainees are expected to determine priority training needs, decide the timing and duration of classes, and help to generate learning materials through local surveys, enlisting the support of local craftsmen, interacting with the local school-teacher and the local government field agents of relevant ministries, etc. Literacy materials often act as an initial attraction but literacy is seen mainly as a tool to acquire knowledge for development and control over certain activities such as data collection and record keeping.

c) Exchange of knowledge between trainer and trainee: As problems are solved through group interactions and knowledge sharing between trainers and trainees, the trainer moves from the dominant position of dispenser of knowledge to that of resource person supplementing knowledge and information gathered by the group.

d) Awareness of inter-communal differences: The problems and skill levels of various groups within the community are not homogenous, and strategies to overcome inevitable clashes of interest must be devised by the group.

e) Action stage: Classical functional literacy programmes concerned with conferring skills have suffered from lack of follow-up activities. Not only does the "finished product" soon start to lose hard-earned skills unless they are constantly practiced, but the fact that course graduates are seen by others as not able to utilize their skills for individual or community benefit, leads to high drop-out rates. With the proposed model, training leads into action programmes which themselves feed a stream of new problems into the training and planning situation.

f) Monitoring and evaluation: Trainers and trainees must engage in continuous control and evaluation activities together with government personnel involved in follow-up action programmes in order to ensure that the training programme is adjusting adequately to the lessons of experience and to changing needs.

60. The training needs matrix presented below clearly illustrates the training-planning-action continuum suggested:

	Knowledge building	Planning and decision making	Action and corrective action
Understanding the problems	Develop: awareness of problems; determination of need for change; understanding means for change; understanding consequences of change	Develop an understanding of; the need to anticipate consequences; the value of planning; the importance of strategy; the need for timely and informed decisions.	Develop an understanding of the need for: organization; testing approaches; taking risks; assessment; modification of action to achieve objectives.
Building capacities	Learn to: examine problems; gather data; quantify data; organize data; locate major difficulties; develop substantive knowledge.	Learn to: analyze alternatives; estimate resources; set priorities; develop strategies; examine factors involved in implementation.	Learn to: administer activities, obtain skills; provide leadership; analyze actions taken and develop corrective action.
Attitudes and values	Learn: expression; self-confidence; discussion; individual and group interaction; communication; sharing accepting others.	Learn to: work together; compromise; make decisions; mobilize others, identify attitudes compatible with developmental changes.	Learn to: focus on problems, accept responsibility; accept challenge; support group action; persuade others about change.

61. Training programmes based on this concept would tend to lead more directly to community actions in primary health care, nutrition, applied agricultural research, non-farm production activities (e.g., textiles, handicrafts, pottery), infrastructural and building improvements. Training could thus be viewed as an important "entry

point" to community-based approaches in these fields, for pressure would be placed on government services to facilitate such developments as trainees become aware of alternatives and possibilities. It is likely that various community committees would be formed to interact with relevant government services, which would then find that these committees facilitated their task enormously, as well as forcing them to work in a more participatory manner. Alternatively, any one of several community-based programmes (e.g., primary health care, community development, participatory agricultural research, functional literacy), could themselves form the entry point for the implementation of a comprehensive, non-formal, village-based training programme.

62. Such training programmes could therefore be sponsored by any one of several government ministries. What is vital, however, is that all the ministries concerned with village level services should respond to the demands directed to them from the village groups. Such response is most unlikely to be forthcoming without certain basic adjustments. Part of the disenchantment with community development and later with functional literacy programmes, arose from the inability, or unwillingness, of most government services to adequately respond to the challenge offered by rural people beginning to demand a share and a voice in development activities.

63. Given the village-level focus of the non-formal training approach and the lack of relevant donor experience, it would at first sight appear that traditional technical co-operation activities have little to contribute to this vital area of rural development. However, opportunities for valuable support activities to government programmes do exist. In addition to research programmes carried out jointly by headquarters staff and national institutes, technical co-operation activities could be directed towards the initiation of regional and international networks of institutions engaged in rural training in order to transfer ideas, exchange staff, and share research results.

64. Perhaps the most important contribution of technical co-operation would be to ensure that in all the projects affecting rural development, receiving structures are built within the communities affected using the training approach described above, and that government services are encouraged to adjust their working methods in order to interact more efficiently with these local structures.

65. Technical co-operation can also be an instrument in the better planning of communications for village training and mobilization. Donors can transfer some of the experience of research on communications technology. This experience has emphasized the dangers of relying on expensive sophisticated equipment and western production standards, although certain types of modern equipment, such as video equipment and cassette recorders, have been used effectively. Planning an effective communications strategy and training in the hardware and software aspects of the approach is an important area where donor experience can be translated into development action.

66. Guidelines for developing a communications strategy have been summarized as follows:

a) Encourage a communication system that is decentralized, i.e., one which fosters localized content.

b) Encourage local participation in the designing, planning, and implementing of non-formal education programmes. Such participation should be linked with local social structure (e.g., community leaders, mothers' clubs, co-operatives, etc.).

c) The strategy should permit and encourage multi-focussed content rather than only agriculture, or only nutrition, or only family planning. Villagers seldom see their problems as neatly compartmentalized as government agencies do.

d) Emphasis should be on preventive-type information rather than on cures.

e) There should be an emphasis on giving the villager more control over the part of the communication process which includes consumption of the message. This covers where, when and frequency of exposure to messages.

f) The strategy should include arrangements for experts' participation in the communication system, through the provision of support information services such as those which can be offered by central and regional units of government, as well as by other development-oriented enterprises.

g) The strategy should also include a means for efficient feedback systems which do not overload the capacity of those who must interpret the feedback.

h) The system should rely on simple communication technology as a means for gaining efficiency, while maintaining local initiative and control.

Participatory Planning and Implementation

67. In most countries planning is understood to mean formulation of general policies and determination of aggregate production or investment targets along broad sectoral lines. The relationships between the aggregate targets and the activities that need to be taken at the community level are not spelled out and the functional ministries and particularly the government field agents must translate centrally-derived plans into local action. Therefore, while development plans have been able to generate action on major investment projects, they have failed to do so with regard to myriad smaller activities so vital to local communities. The literature is full of examples of unrealistic plans which were never translated into action, cost more than scheduled, produced less than anticipated, led to undesirable effects, or involved coercion in their implementation due to the gap between macro and micro requirements. Some countries have used regional planning to bridge this gap, but as noted earlier, this has proved to be complicated and also remote from local realities.

68. There is obviously a need for a change in the way the planning process is perceived. The model outlined below concentrates on planning activities at the local level, which are not only meant to generate data for district and national plans but to lead directly to village development activities. This type of planning does not pre-empt macro-planning, but should be viewed as complementary to it, not only in helping government officials prepare more realistic projects but also as a way of increasing the efficiency of the development process at the micro-level. It does this by tapping local knowledge, energies, and resources through group participation in decisions affecting the conditions of the community. As such the approach is multidisciplinary and multisectoral. It is comparable with that of

participatory research and technology development and forms an important part of the training and action approach outlined in the previous section. Planning at the community level is critical to the efficient functioning of community-based services (e.g., health and educational services), to the contribution of rural people (the consumers) to appropriate technologies, and to the resolution of local conflicts concerning contributions to, and benefits from development activities.

69. In planning a communal endeavour or a state-sponsored project requiring local participation, a series of decisions must be made; decisions about what to undertake lead to decisions regarding implementation. Decisions must also be made regarding the distribution of benefits. In a sequential planning approach such as the one advocated, at any point in the "project cycle" the community might initiate a further project, thus starting an identical decision series which, because of resource competition (e.g., labour, management skills, and cash) must be explicitly linked with on-going projects. The decision series may be summarized as follows:

a) Initial Decisions

i) Needs and priorities: Identification of problems which are susceptible to improvement through use of local labour and other resources plus those inputs (advice and materials) which the group is reasonably certain of obtaining from the government. Selection of priority undertakings. The assessment might be carried out by government officials on the basis of discussions and survey data under certain exceptional circumstances, but all projects requiring local resources and understanding should be decided upon jointly. Schemes relying solely on community resources (e.g., simple buildings, village road improvement, communal plots) are best decided upon by the local community at this initial stage.

ii) Initiation: Whether to start a selected project will depend largely on the verification of the data on which the original selection is made, as well as local circumstances, e.g., weather. Important factors are confirmation of assumed government inputs and continued group support. Who actually makes the decision to start may strongly influence those who are expected to participate.

iii) Design: These decisions include questions of location, specific approaches to meeting project goals, financing, staffing, standards, enforcement, people to participate in each phase of the project, job responsibilities including implementation, benefits and evaluation.

b) On-going Decisions

These decisions will be much more subject to the authority and influence of individuals and groups within the local community, but will follow a similar sequence:

i) Needs and priorities: A continuing search for other needs and priorities to which the on-going project might respond.

ii) Whether to continue: Following evaluation.

iii) What else to do: Decisions on adjustment to structure and content of the project to respond to changing circumstances and information on project progress. These include relocation of service centres, location of new facilities, financing, staffing, standards and enforcement, reviewing decisions on individuals and groups involved in various aspects of the project, e.g., resource contributions, special responsibilities.

iv) Participation in benefits: Who participates to what extent, in investment, savings and consumption decisions.

v) Evaluation: Consisting of decisions emanating from information flow, e.g., project decisions (local and district), macro-planning data for regional and national uses.

70. Data requirements for community-based planning are identical to those of "top-down" systems, but the methodology of data collection will differ in that the future project participants will be actively involved in collection, and much of the data will be gathered within the context of action programmes rather than as a separate exercise divorced from immediate actions. The data may be classified into four main groupings:

(a) Impact data: designed to allow assessment of the societal effects of a project,

(b) Development strategies data: baseline data of various types.

(c) Project formulation and analysis data.

(d) Project implementation and guidance data.

71. The satisfaction of these data requirements provides the opportunity for motivating and educating the communities involved by using "people as transmitters of ideas and not as mere terminal receivers, involving the people in problem-solving and making them aware of the context of their own problems. It should be stressed, however, that data collection, too, entails a cost in terms of financial and human resources devoted to it. Therefore, only data that will be immediately and directly utilized in the planning process at local community level should be collected.

72. The introduction of a system of planning at the local community level admittedly poses formidable institutional problems. The sheer number of communities and difficulties in ensuring consistency between local, regional and national plans in

terms of financial, human and physical resources, necessitates the creation of efficient administrative structures and distributive systems linking the numerous components. Problems also arise from the behavioural and social constraints within each community. Since political, social and economic systems differ and the extent, for example, of reliance on market mechanisms or central planning, no standard formula regarding planning at local level can be prescribed. One general principle, however, may be stated. Such planning requires an extremely decentralized system of decision making. Consequently, administrative and budgetary structures may have to be adjusted if rural development as defined in this paper is to be adopted.

73. A critical adjustment which affects the degree to which local population can successfully participate in the planning process is in respect to budget allocations. Vertical budgetary allocations to individual departments at the local level from ministerial budgets and capital development sources make it extremely difficult to ensure that different public agencies provide the right amount of money at the right time for multisectoral programmes. There is usually a lack of authority or an unwillingness to bridge gaps by reallocations. Above all, vertical departmental allocations tend to be based on artificial or unrealistic assumptions about local needs, opportunities and priorities. This problem could be resolved by wider application of territorial budgeting, i.e., a common budget for all the major inter-related agencies in a particular sub-district or region, allowing some flexibility in the choice of local priorities and more scope for local officials to authorize smaller items of expenditure which may be necessary for the success of other funded projects.

74. Another major problem in government support is the performance of its field agents and their relationship with the local community. Recruitment, training, responsibilities and monitoring procedures should be changed. This reorientation is needed to develop an increased appreciation of development aims, greater sensitivity to such community factors and issues as dependency relationships, traditional groups, and skewed resources situations, and understanding of the multisectoral and multidisciplinary nature of development, and the role of the community and government in the development process.

75. What various government agents should do must be planned in advance to avoid conflicting demands on their time as new programmes and priorities flow out of headquarters. Faced with the impossibility of doing everything that is required of him, the extension agent adopts the sensible strategy of concentration on whatever is most visible and unavoidable in order not to get into trouble. Activities must be ranked in order of priority and matched against available manpower. New activities should only be undertaken if given greater priority than current ones, which will then be deleted or postponed. A second important planning principle is that of compatibility of functions. Regulatory and advisory functions, for example, are not easily compatible, and all functions must be examined to allocate unsuitable ones to other personnel. In this way, each type of field agent carries out a limited, harmonized range of functions.

76. Management of day-to-day government services is based upon improved procedural systems, namely, the programming and implementation management system, the field staff management system, local participation procedures, the evaluation

review sequence, rural research and development, and plan formulation procedures.

77. Each of these sub-systems must be synchronized between departments and ministries and with the emerging ability of the community to design and implement their own research and development, training and services, planning and action. Just as the relationship between government worker and individual rural dweller has always been important, the interface between government plans and actions and community plans and actions is critical to participatory development.

78. Government intervention in rural development can be most effective when based on the informed co-operation of rural people. The solutions must largely come from the people concerned. They must include an element of people's management and willingness to enforce the disciplines of pest control, water control, and stock control; to share risks; to assist with their labour, skills and investment on land and water resource improvements. When the possibilities of helping to design and run community health facilities, nutrition campaigns, family planning, recreational and training programmes and non-agricultural employment efforts are also taken into account, the immense potential of improved local-level planning becomes apparent.

79. To translate potential into practice requires an effort at all levels, and technical co-operation activities can only be peripheral to the policy decisions and administrative reforms carried out by governments. Because of the high areas of ignorance which remain however, technical co-operation activities could catalyze the process through action research projects within the context of comprehensive area development schemes and by demonstrating the evolution of community planning skills. The planning and management of government services has recently begun to benefit from fresh insights borrowed from the systems approaches applied in industry and engineering. Experiments on these approaches and the accompanying decentralization of authority could be undertaken in a range of technical co-operation projects, preferably in conjunction with action-research in encouraging community-based planning.

Data Acquisition for Programme Monitoring and Evaluation

80. Participatory planning will only be effective if there is some way to create a link between local intermediate and national levels of planning and management. The raw material of both is information which must be acquired systematically if it is to be of use. It has been recognized for some time that monitoring and evaluation should be programme-oriented. At the same time, between this recognition and its implementation in practice, there exists a large gap. A major reason for

this has been the absence of effective data acquisition procedures. Without these procedures, planners have tended to plan on the basis of scanty, imprecise, unsystematic, or unreliable information and programme managers have been able to count only the inputs and outputs but never the impacts which determine whether or not programmes have succeeded and thus set the basis of planning for future activities.

81. A major effort in technical assistance should be to upgrade national capacities to acquire data on rural areas. It must be recognized that in a situation of resources scarcity, this data acquisition process cannot follow the approaches taken in wealthier, more developed countries. Rather they should be so designed as to provide sufficient data (but no more), rapidly (within one year), and inexpensively in order to establish a realistic information base for monitoring and evaluation in the context of programme planning and implementation.

Improved Project Design, Monitoring and Evaluation

82 Warnings about unnecessary rigidity or complexity in project documents, notwithstanding many problems experienced with UNDP-financed projects related to rural development could be avoided by improved project design. Three areas are generally neglected during the process of project formulation and appraisal:

a) The relationship between the UNDP-financed project and its associated programmes.

b) The socio-political background to the programme, intra-sectoral links and the links with other sectors which should affect project activities, the choice of the project's immediate objectives, and the feasibility of attaining broad developmental goals.

c) The likely impact of the programmes and the project on the development process.

The Project and its Associated Programme or Institution

83. An agricultural extension project exemplifies the problem. In this case, the project request might be linked to a development objective such as the increase in national food crop production by amounts specified in the the Five-year Plan. The immediate objective of the project might relate to one or more actions aimed at raising the efficiency of the extension service, e.g., pre-service or in-service training of agents, improved administrative or planning procedures, the introduction of a monitoring system for field agents, farmer training, support to area or sub-sector programmes, or formation of women's or youth's organizations. Rarely will a project be able to, or be expected to cover the whole range of possible objectives related to a particular programme or institution. However, the tendency to attempt to do so leads to proposals for large "balanced" teams of specialists, many of whom may be redundant. For example, instead of providing specialists in all the areas of extension mentioned above, what may be needed is a concentration of training specialists, while in other cases, specialists in youth organization might be required.

84. In order to make an optimal choice between possible alternative actions, a thorough analysis must be made of the associated programme. It should include an examination of the purpose of the programme, the scope of its activities, the extent of its financial resources, the calibre of national personnel, and existing policy constraints. Thus, project formulation will require a change in orientation from the present almost exclusive focus on project aim, inputs and activities. One beneficial result would be the separation of immediate project objectives and outputs from those of the related programme, which could be stated separately in the project document. This would clarify the scope and content of the project activities and inputs needed to achieve project objectives.

85. Current project documents often present wildly ambitious immediate objectives to strictly limited technical co-operation inputs on the one hand, and to certain overall programme aims on the other. To continue with the previous example, 24 man-months of extension training services for field agents would not be expected, by itself, to lead in the short run (immediate objectives) to new farmers' organizations, better monitoring methods, more efficient planning of extension campaigns and improved farmer training, even though these are the aims of the government extension service.

Intersectoral Links, Agrarian Society and Government Strategies

86. Since most projects in rural development, together with their associated programmes, seek to influence the activities of large numbers of rural dwellers through the government apparatus, the feasibility of what is being proposed in the project document will depend on:

- a) How well the response of rural people has been interpreted.
- b) Whether the government apparatus can implement what is being proposed.

87. The part of the project document meant to contain this type of analysis is the section on Background and Justification. This part, however, is generally deficient when measured against the level of analysis which should precede the choice of immediate objective, the weighing of alternative approaches to reaching it, and the determination of the workplan and style of project implementation.

88. In the case of an agricultural extension project, for instance, it would be important to examine the following intersectoral relationships at the level of the family, community and society as a whole:

- a) The general level of education among the farming population which will affect *inter alia* the choice of communications media, the ability of the rural community to participate in research and development activities, the attitude of educated youth to careers in farming, and the degree to which rural women can be involved in agricultural improvement.

b) The links with health and nutrition. The type of farming system, which extension advice is directed towards improving, is the main determinant of the rural diet. Similarly, the health status of the population is partially correlated with the availability of food and, in turn, affects the intensity of farm work which can be undertaken. Water supplies affect health, ability to keep animals and to irrigate crops. In turn, irrigation works, fish-ponds and storage dams entail health hazards (schistosomiasis, ouhocerciasis, etc.), as well as raising production potential. Health measures (human and draft animal) might be an essential precondition for the adoption of agricultural innovations, and, as in the case of education, they can also provide a means of attracting the support of the local community before tackling agricultural problems. At the macro-level, the potential use of veterinary extension workers to assist in health campaigns, and medical personnel with veterinary campaigns, remains virtually unexplored.

c) The spatial distribution of the population and its density will determine the design of extension manpower networks, the site of service centres. Current migration patterns, together with data on reproduction rates, will indicate the future population characteristics in rural areas and provide long-term planning information.

d) The possibilities of agro-based industries, the employment capacity of planned industry, and details of local manufacturing capacity are also factors which should be studied.

89. At the level of agrarian society, the importance to any extension intervention of current farming systems, land tenure patterns, household economy data, attitudes to change, cultural characteristics, local organizations and group stratification (political, wealth and income), must all be considered.

90. The significance of these factors in determining what can be done and what can be built upon seems too obvious to detail, yet the fact remains that this analysis is rarely performed either during or after the project formulation process. There may be projects which are several steps removed from direct interaction with agrarian society, but even in them the output of technical co-operation must eventually be designed to influence some aspect of the lives of rural people.

91. Another crucial aspect of the project environment is the macro-policy framework and strategies which influence the settling of the project through the style of development being promoted, and the financial allocations to the various sectors. In the case of the extension example, likely implications include:

a) Whether the emphasis on agricultural development should be on subsistence or cash crops; the place of soil conservation, livestock forestry and fisheries.

b) Whether improvements should be broad-based or in selected regions; whether through better service programmes or commodity programmes.

c) Price incentives and subsidy policies; technology policies, viz., mechanization, fertilizers, irrigation, etc.

- d) Farm tenure policies, e.g., the balance of smallholdings, estates or group farms.
- e) Level of emphasis on co-operatives as vehicles for agricultural improvement.
- f) Policy towards decentralization of planning and research and the degree of power and authority the government is willing to allow its local officials, farmers organizations, farmers workers' union, etc.
- g) Salary levels for agricultural field agents, viz., those in other ministries, recruitment policy, emphasis on women's extension, farmers' training, ruralization of the primary school curriculum and introduction of preventive health methods.
- h) Co-ordination between ministries and departments within ministries.

92. The amount of information needed to design and implement properly an agricultural extension project is enormous, but there is no reason to believe that it would be any less if the example had related to primary health care, community development or non-formal education. It may be asked whether the limited nature of most technical co-operation activities justifies the effort in obtaining this information, and it is true that the programme being supported should be based on an even greater body of information, although this is rarely the case. Ideally, the data needed can form a repository of knowledge, which can be drawn upon to a greater or lesser extent for all other projects, the attractiveness of such a central store of information being that it offers the possibility of cutting down costs for individual projects.

Development Effects

93. The likely development effects of a project are seldom explicitly considered in the appraisal and design process. At least the following effects should be monitored:

- a) Equality of wealth and income.
- b) Self-reliance.
- c) Communal participation.
- d) Employment effects.
- e) Attainment of basic needs.

94. Appraisal of likely development effects should be performed at several levels, at each of which two questions must be asked: How can likely negative effects be eliminated or reduced; and how can positive effects be introduced or amplified? The first level is that of the project itself, i.e., the proposed activities and immediate objective. The second relates to the associated government programme and the extent to which the project improves its development performance. The third relates to the development impact of the project development objective, which is usually only achieved by the activities of several

programmes. The second and third levels pose questions of a fundamental policy nature: for example, the government extension service might be concentrating its efforts on larger, mechanized farmers, ignoring the problems of sharecroppers, small farmers and the landless. Similarly a development objective of greater production levels might be based upon higher aggregate production from more favoured areas of the country and from the largest farmers.

Project Implementation, Monitoring and Evaluation

95. The preceding parts of this section have been concerned with proposals to improve project design by: (a) making a clear distinction between project and programme as well as explicitly recognizing their inter-relationships: (b) analyzing the project environment (intersectoral links, agrarian society and government strategies and structures); and (c) examining the likely development effects of the project and its associated programme or institution. A more detailed scheduling of activities is not proposed as it would not be consonant with the experimental approach and the need to rely more on the potential of the local population. Such reliance implies that the project should unfold together with the rising aspirations and capacity of project beneficiaries and cannot simply direct and regiment local reactions in a tightly scheduled fashion.

96. The fact that timing is a concomitant of communal participation should not be taken to suggest a totally ad hoc approach. Rather, this flexibility should be accompanied by enhanced knowledge of the project environment and greater precision as to project outputs and immediate objectives. It does imply however, greater authority vested in project management which should be free to modify activities and inputs as opportunities arise. Management would also be under less pressure than formerly to demonstrate quick results and should concentrate on building human capacities which cannot be measured in the short run. Monitoring and evaluation would call for the application of more subtle methods than previously, in which the targetted beneficiaries would be involved in assessing the effects of the project and programme.

97. Evaluations of technical co-operation projects have emphasized the problems arising from lack of government support. These problems can be broken down into three groups:

a) Lack of support (counterparts, office staff, etc.) from the associated programme or institution.

b) Lack of articulation with related government programmes (co-ordination problems).

c) Lack of policy support (prices, salary incentives, etc.).

98. The emphasis in the situation report of the project manager and in the tripartite review process is currently upon the internal project matters covered by (a) above together with progress on the workplan, delivery of equipment, arrival of experts, etc. This emphasis is not always conducive to a search for better ways for the project to support the programme. Where the emphasis is on (a) the government is usually represented only by the direct counterpart agency and problems

(b) and (c) cannot be dealt with adequately. A more complete evaluation could be achieved if the progress of the associated programme was explicitly examined at the same session as were the internal project matters, in which case representatives of related programmes could be present. Thus, emphasis would not be only on an externally generated activity, but also on overall national responsibility for the success of the programme.

99. Programme performance in terms of administrative, economic and technical effectiveness at the level of the rural community is an important component of evaluation, and the local community is obviously in the best position to give an opinion on this aspect. Each project should therefore have the responsibility of developing a community monitoring component in the implementation process, and some way be found to organize quadripartite reviews at certain stages of projects. (A modified operational seminar would appear to offer possibilities.) This component would form a natural adjunct of activities designed to promote community participation. Even for projects not directly working at the community level, information on what effects eventually percolate down, could lead to valuable adjustments in the project workplan.

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CHAPTER IV - AGRARIAN SOCIETY

The Nature of Agrarian Society

1. The focus of analysis is the agrarian or rural community which may be defined as the smallest group which feels itself to be a viable whole for most social and economic purposes. In agricultural societies it is usually a village; in pastoral societies, a clan or other group based upon common descent. In both, however, territorial and kinship determinants, to an extent, overlap and reinforce each other. A "web of kinship" governs social and economic relationships in settled communities. Common territory, watering points and established routes of transportation are essential elements in the identity and cohesion of pastoral communities.
2. The term "community" tends to be misleading in that it conveys a sense of social harmony among its members, which is not always the case. For want of a better word to describe a grouping of households that has a common sense of identity, "community" will continue to be used in this report but without any connotation of "communal bliss". Before going further into its characteristics, one should examine two other terms that are important for understanding rural development: "agrarian society" and "peasant".
3. Agrarian societies are characterised by the fact that agriculture and animal husbandry constitute the principal economic occupations and livelihood of the majority of households. These societies may have significant proportions who are not engaged in cultivating the land: those who are undertaking domestic chores, trade, transport, construction, manufacturing and processing, or engaged in service occupations such as teaching, health services and entertainment. To be classed as agrarian, however, a society must have more than half of its population directly dependent for their livelihood on agrarian production. "This means that not only their economic activities but also their social institutions, political power structure, value systems, cultural traditions, and settlement patterns as well as their history are directly linked to the use and exploitation of land as a productive resource. Development produces, first of all, changes in agrarian structures and in the characteristics of the agrarian population. 1/
4. Within agrarian society, and even among cultivators, there are several social groups distinguished by their relationship to land: there are peasants, absentee landlords and latifundistas, share-croppers, tenant farmers and landless labourers. Sometimes these categories have different names or are further differentiated. Since the numerically dominant group in most agrarian societies are the peasants, the term peasant society and agrarian society are used sometimes synonymously, in contrast with tribal-nomadic and industrializing societies. It is important to note that peasant studies, from a wide range of social, historical and physical conditions from Russia to Tanzania and Colombia to India, demonstrate striking similarities in the "persistence of certain peasant attributes" which are highly significant for any actions that involve them. In our concern with

rural development's focus on people, we need to remember that peasants are the majority of mankind, that in most countries of the Third World the "people" largely denotes "peasants", and "national culture" refers to "peasant culture".

5. The family farm is the basic unit of peasant ownership, production, consumption and social life, and the balance of consumption needs, available family labour and the farm's productive potential, are major determining factors in peasant development. "The rhythm of the farm defines the rhythm of family life." The mix of jobs done by the peasant and his family also gives him a unique occupational status, because of the lack of specialization and the degree of inter-relatedness of functions. The peasant's world is the village community or peasant commune where he is nearly self-sufficient in social terms (appropriation and division of land, marriage, social and religious needs). Co-operation, coupled with some form of local self-government, comes from shared property rights in communal land and through participation of more than one family in certain tasks such as particular farming operations, land preparation, water control and home-building or repairs, as well as habitual personal contact and an absence of anonymity, widespread endogamy, strict conformity. The peasant's position in society, however, has caused a great deal of confusion: is the peasantry a social class with a unity of interest, expressed in group sub-cultures, group consciousness and group action, shaped in turn by the conflict relationship with other classes, or is it a "society in itself" with the elements of a self-sufficient, closed pattern of social relations? As a social class, the peasantry would appear to conform to Shanin's characterization of comparatively low "classness", which rises in crisis situations, since it usually lacks cohesion for political action but is also dominated normally by other classes. 2'

6. Peasants are generally distinguished from tribesmen by their contact with towns, markets and specialized cultures. If production is largely for a market, the peasant becomes a farmer. Shanin defines the peasantry as consisting of small agricultural producers who, with the help of simple equipment and the labour of their families, produce mainly for their own consumption and for the fulfilment of obligations to the holders of political and economic power. Such a definition implies a specific relation to land, the peasant family farm and the peasant village community as the basic units of social interaction, a specific occupational structure and particular influences of past history and specific patterns of development. A specific traditional culture has developed related to the way of life of small communities. Another characteristic of the peasantry identified by Shanin is their "underdog" position, the domination of peasantry by outsiders. However, since the peasant produces mainly for the needs of his family, on his own land (property being held by custom or legal title) he is relatively independent from other producers and from the market, and can withdraw from the market in times of crisis. The concentration of population is affected by the agricultural nature of production and determine annual or seasonal cycles of peasant labour and household life, while nature and climate introduce a large element of chance into the experience of the peasant community.

7. In peasant society, economic and social relationships are intimately connected with custom and religion to form a coherent whole. Economic relations linking the same individuals are reinforced by kinship ties and ritual relations, as shown by customs associated, for example, with payment of bride-price or division of labour. **Interpersonal relations tend to be multiple, not specialized** and impersonal as in industrial society. Because of these overlapping relationships, technological and other changes such as the introduction of food crops will not be looked at from the perspective of economic growth alone, but will be seen against cultural values and traditions that have an integrative function for the peasant community as a whole. The community's major function is to provide security for its members. This security for the individual and his family is achieved by spreading the risks and uncertainties over an extended family and, for such purposes as the use of communal lands or the control of markets, over the entire community. 3/

8. A complex network of customary rights and obligations makes up **this system of** security and ensures the individual the essential minimum he needs for survival. These rights and obligations extend over the full range of his social and economic relationships. To fulfill his customary obligation, he will sometimes go to extraordinary lengths and may act, in the eyes of outsiders, in a seemingly irrational manner, perhaps giving gifts which he can ill afford or incurring debts well beyond his earning potential. But he does so in order to ensure the continuance of reciprocal obligation in times of adversity. Extravagant feasts, participation in co-operative labour, and the amassing of cattle for long-term loan, sometimes extending over several generations, are forms of social expenditure required because the future is uncertain.

9. Studies in economic anthropology and in agricultural economics dealing with peasant economies demonstrate the rationality of peasant behaviour once the institutional context is understood.4/Economic models of supply, demand and price cannot be applied to situations where factors of production and products are supplied and used in kinship-based production units rather than in impersonalized markets fully controlled by prices without interpersonal loyalties or obligations. Institutions rather than behaviour need to be analyzed before one can apply the conventional economic tools.

Historical influences

10. Third World peasant societies today are the result in part of the gradual incorporation of their economies into the world economy. The gradual involvement with metropolitan economies was accelerated during the colonial period. The kind of economy, social structure and value system that existed before contact with colonial regimes, the nature and duration of the contact itself and the character of the dominating power, these together affected the response of the peasant communities to the altered economic context. The mechanisms of incorporation were also multifaceted including labour expropriation in various forms including slavery, taxes and wage-labour; new modes of production through manufacturing, mining and plantations; the destruction of indigenous competition through political and legal powers; and the introduction of new imported commodities and styles of living. The

process of change, therefore, has been immensely varied and complex, but some attempt at describing a generally shared experience may be useful.

11. In the case of "traditional" agriculture, in zones of fixed cultivation rights in land were acquired through membership in the community. These rights were generally limited to use of the land, and land not under permanent cultivation and pastureland were considered as communal property. Rights were passed down through established rules of inheritance which reinforced the kinship structure and helped to hold the community together. The rules protected against any unfair accumulation of land which would have a disruptive effect, for the security of the entire community meant the continued access of even its poorest members to land. Individual families also depended upon cooperative labour arrangements to help them carry out tasks, such as the thatching of roofs, which were particularly arduous or had to be done in manageable time. In addition, strong emotional attachments to the land, which went beyond its economic value and were reflected in ceremonies related to planting and harvest, mitigated against major changes occurring in patterns of tenure, cropping and cultivation methods. The unwillingness of the Navaho to use a steel-tipped plow, as violation of land that is sacred, is a classic example.

12. Gradually the traditional basis for community solidarity and conservatism was eroded by new developments largely from outside: improved security and communications, the introduction of cash crops, of improved irrigation and other technologies, the opening up of employment opportunities outside, and the granting of land for plantations and European settlement. Concepts of private property and individual title emerged, and land became a negotiable asset to be used as security for the loans which the peasant increasingly needed in order to engage in commercial farming. The way was thus cleared for the accumulation of land in the hands of some members of the community at the expense of others. With the spread of commercial agriculture, money-lenders, who had previously served a welcome role in advancing to the subsistence farmer what he needed to tide him over until harvest, were able to flourish, and as their money needs increased, the peasant became more vulnerable to being dispossessed. Increased renting, share-cropping and labour for wages, as well as the outside competition which undermined the market for the non-agricultural and craft production of the community radically altered its economic structure. These economic changes usually led to increased social stratification, marginalization of certain elements of the community, confusion of male and female roles (for example, in parts of Africa where women were traditionally responsible for agriculture), and (especially in Latin America) the potential for class conflict between landless peasants and smallholders on the one hand and the landed elite and urban commercial interests on the other.

13. In general, communities engaging primarily in pastoralism or in shifting agriculture were less affected by these changes. The regions they occupied tended to be less attractive to commercial agriculture, but also communal rights to a tract of territory were critical to the continuation of their way of life and hence more deeply entrenched. This explains the extreme conservatism of pastoralists generally.

Role of Women

14. The status of women in peasant households and communities has also undergone a major change as a result of historical influences. "European settlers, colonial administrators and technical advisers are largely responsible for the deterioration in the status of women in the agricultural sectors of developing countries. It was they who neglected the female agricultural labour force when they helped to introduce modern commercial agriculture and promoted the productivity of male labour." 5/ They believed that cultivation was normally a job for men and did not sympathize with the female farming systems they found in many of the colonies, particularly in Africa. Consequently, their extension services and efforts to increase productivity concentrated on the men, and this bias was the cause of many failures. The same attitude was responsible for a number of land reforms in African and Asian colonies being decided in favour of men. It is clear, however, that female farming has been predominant in many African tribes and regions, in the whole of the Congo region, in large parts of South East and East Africa and in parts of West Africa. Even today in terms of work input, village production in Africa south of the Sahara continues to be predominantly female farming. In Latin America, in many communities where Indian and black populations are in the majority, women do most of the farming. This is also true of tribal areas of South Asia and South East Asia.

15. Two factors seem to be decisive in determining the degree of female farming:

- (a) The difference in agricultural systems. Female farming is common under shifting cultivation for all tasks other than the initial clearing of lands under the plough; where land is scarce women have a much smaller input, but when there is irrigation and the labour input rises, women again share much more in the work.
- (b) Differences in social hierarchy between tribal areas with communal landownership and settled areas with individual ownership. Working women predominate in the former arrangement; however, status is attached to the exclusion of women from work in highly stratified societies.

16. Where there is a large number of agricultural wage labourers as in many Arab, Latin American and South Asian countries, the participation of women declines. "Women always seem to bear a large part of the work burden in the more egalitarian communities." 6/ There is also economic incentive for polygamous marriages in areas under shifting cultivation, as a man with several wives can cultivate more land (with more labour) than a man with one wife; it also allows a man to enjoy more leisure. A strong motive for wanting to remain under a system of shifting cultivation in spite of government encouragement to introduce the plough is that most cultivation tasks are done by the women. Also bride wealth is paid by the husband or his family, and the woman enjoys considerable freedom of movement and a degree of economic independence from sales of crops. In plough-cultivation, male-dominated society a dowry is usually paid by the wife's family, and the woman is entirely dependent on her husband for economic support (as is usually found in

regions of Arab, Hindu and Chinese culture). Women of the lowest social classes also work as casual agricultural labourers in highly stratified societies. The practice and availability of female wage labour in different areas has important influences on differential wage rates and on the labour intensity of cultivation methods. In such areas, women are also commonly found as labour in non-agricultural occupations such as road and house construction tasks.

17. Another important colonial influence has been that of recruitment policy for the plantations. In Ceylon, Vietnam, Philippines, India and Pakistan, women account for 35-50 per cent of their total labour force. In Africa only men without their families were employed, and women have had no share in the production of export crops. In the process of industrialization, women have lost out in most Third World countries. Although they play an important role in home-based village industries and crafts (a classic example being the batik industry in Java), they are employed much less as factory labour. There are striking differences in the participation of men and women in trade. It seems that women are engaged as traders in areas where they also participate actively as farmers. In Ghana, in the Yoruba part of West Nigeria, in Eastern Nigeria, in areas of Indian and black influence in South and Central America, and in much of South East Asia, market trade in both rural and urban areas is dominated by women. This particularly applies to the sale of agricultural products and traditional craft goods, where the women are also engaged in production.

18. With changes in the peasant economy produced by monetization, commercialization and mechanization, women's role in agriculture has tended to diminish. Women continue to cultivate subsistence food crops while cash crops are considered the exclusive preserve of men, especially in Africa, largely as a result of the colonial attitudes. The major concern of governments with increasing the marketed surplus and cash crops for export has, of course, reinforced these effects through efforts in training, credit, marketing, etc. Case studies in Egypt, Peru, Sri Lanka, and elsewhere suggest that women may be treated as a reserve labour force to be used in peak periods, but also the first to suffer unemployment when conditions worsen. In conclusion, there can be no rural development in the way it has been defined as long as there is such gross **under-utilization of the resources** and skills of women in agrarian societies, and if the processes of growth themselves are responsible for their **under-development**.

The Colonial Heritage

19. It is easy to give a misleading impression that peasant communities have been thrown from a Golden Age of bucolic bliss to one of harsh social tension and domination of the weak by the strong, and that the "wicked colonialists" have been made into the universal scapegoats. From the evidence of regions where the colonial influence has been negligible, however, it is obvious that agrarian societies have never been ideal. Hierarchies have existed in nearly every society. Sickness, famine, wars and national calamities took their toll and made rural life as brutish and perhaps more helpless than it is today.

20. The colonial period brought with it western medicine and science, new forms of administration, management and law, new crop varieties and livestock species,

improved transport and communication and the forging of viable nation-states in many instances. Although some of these changes undoubtedly benefitted rural society, they were rarely undertaken for that express purpose.

21. Major changes in social structure resulted from alterations in the pattern of landownership. Increased monetization and commercialization of the agrarian economies resulted from having to pay taxes and tribute, and from being financially encouraged or obliged to switch from food crops for subsistence to cash crops for export. New rural social classes were formed in Latin America and Asia, and the stratification of African social groups was heightened. Self-sufficient village communities became more dependent on outsiders. The productive security of kinship and traditional patron-client rights and obligations broke down to a large degree, and the state acquired a greater stake in servicing and promoting agricultural growth, requiring, in turn, a considerably more centralized and enlarged bureaucracy. The depth of influence of these factors differed substantially in the three regions, according to the nature of the pre-colonial societies and of the dominant powers, and the mechanisms of incorporating the colonized economies.

22. Also agrarian society was indirectly influenced by changes in the direction of national development and in the consequent behaviour and interests of Third World elites. The immediate impact of colonialism was to tie the colonies more closely to the international economy dominated by the industrialized countries. Minerals and agricultural exports from the colonies were channelled to the metropolitan centres, and all other efforts of colonial governments were subsumed under that objective. Capital investment, construction of physical infrastructure, administration, law and order, agriculture, education and health policies, all had the basic aim of extracting the surplus and shipping it out as efficiently as possible. (Rare and partial exceptions to this pattern were some of the settler colonies in the Third World.) In the process colonial regimes made direct use of the indigenous elites (indirect rule, tax collection, lower ranks of the administration, petty trades) or developed a small proportion of them to help them in their tasks.

23. Small "modern enclaves mushroomed in the ports, mining centres, plantations and administrative nuclei of the colonies, and the traditional indigenous landed elite joined with the new indigenous middle class (made up of the labour aristocracy of the mines, plantations and scattered factories and those on the fringes of commerce and administration) to form part of the colonial system. Whereas the old elites had been an organic part of agrarian society as chiefs and landlords, the new elites, linked to the colonial economy, were divorced from the agrarian economy and society. Rural areas were seen only as sources of food and reserves of labour for the "modern" mining, commercial and administrative enclaves.

24. The indigenous elites began to see their economic interests as similar to those of the industrial countries. This had far-reaching consequences for the process of growth and change subsequent to the formal ending of the colonial period. The Third World ruling classes on the whole have found it profitable to continue the same relationships of trade and export of primary commodities to the industrialized world, and to maintain the same administrative and commercial

structures domestically. Consumption patterns and aspirations imported by the colonial regimes were adopted and reinforced by highly skewed patterns of income distribution.

25. In non-economic spheres colonial influences are seen in the use of language and the content of education; the generalist training of elitist civil service administrations; the use of "international" standards or norms for services such as health, or in housing construction or road building; the view of development as GNP maximization and modernization on the western, urban-industrial model. Third World countries were "traditional", "backward", and "underdeveloped", and the unique path to progress and "catching up" was pursued with zeal by elites throughout the Third World. In doing so, they turned their backs on their peasant heritage, the agrarian resource base of their countries, and looked instead for ways of enlarging the small "modern" enclaves.

26. Since modernization was viewed as increasing the size of the industrial sector at the expense of the agrarian sector, what could be more natural than investing in urban areas, keeping agricultural wages low, and turning the terms of trade against rural sector production.

27. As lack of capital, managerial skills, and industrially trained manpower were seen as the basic bottlenecks, the ruling groups looked to the industrial countries for private investment, foreign aid and technical assistance. The technologies utilized in the process of industrialization were accepted in a more or less unadapted form, which in many ways served against the interests of the rural poor.

Social Structure and Land Tenure

28. Colonial changes, for instance, in land tenure or in the division of labour produced new forms which have existed side-by-side with social structures that retain their pre-colonial character. In all regions of the Third World, there are sections of agrarian society that have been relatively unaffected, at least directly, by European settlement, plantations or export crops, or even the rapid commercialization of agriculture.

Latin America

29. Particularly in the Andean region, Indian communities were forced to move to poorer lands on the Altiplano mountain slopes where they suffer from falling yields on tiny minifundia but where they retain many of their old forms of social organization. These "corporate communities" of subsistence farmers, where the collective relationship to land still persists and where kinship ties are important, share the land with the other principal group of small farmers who produce cash crops mainly for the market. Other important social categories are the criollo or white aristocracy of the large private estates, the hacienda; administrators or managers of hacienda who are frequently mestizos or mixed; Indian or mestizo peons (bonded-labour) of the haciendas; and the Africans who had been brought as slaves on the Brazilian and Caribbean plantations. The communal Indians also find

seasonal work on the haciendas. Throughout Latin America independent owners of small or medium-size plots belong more to the category of commercial farmers than peasants.

30. In Latin America, concentration of landownership has been the decisive factor in determining social structure. The Inter-American Committee on Agricultural Development undertook a study in the late 1960's of land tenure and agricultural development in countries that had not witnessed a thorough-going land reform at that time. These studies underlined the importance of latifundia (defined as large farms employing more than twelve persons per year) and minifundia (sub-family farms providing insufficient employment and income to a peasant family with two man-years of labour-power). The most drastic concentrations of land are found in three countries in which the latifundia, representing less than 2 per cent of the farms, control half or more of the land, while the minifundia with about 90 per cent of the households, have less than 20 per cent of the land.

31. In all of the cases, peasants (minifundia plus those living on farms providing just adequate employment and income for a family labour force of two to four persons), who represent from 63 to 98 per cent of all farm households, possess much less than half of the land. Landless labourers, together with the "minifundias", make up two-thirds or more of the total agricultural population.

32. In Central America landownership is even more concentrated: 90 per cent of all farms control only 20 per cent of the land while 1.4 per cent of the farms control 52 per cent of the total land. Such is the polarization in a continent where landownership confers economic and political power as well as social status.

Africa

33. Hierarchies were much less marked in most of traditional sub-Saharan Africa, where land was more abundant and where control over cattle herds provided the basis for feudal political structures. Tribal or clan life is still important in large parts of the continent although restricted by the administrative and political pressures of the "artificially" created boundaries. The slave-trade, settler colonization and the production of export crops had a profound impact on peasant social structures as well as on the national economies. Even today eleven countries remain dependent on the export earnings of one major product of a primary unprocessed sort. A dozen more are substantially dependent on the earnings of two export products while the rest are only slightly more diversified. The growing of these export crops not only has made them dependent on the industrialized countries; it has also limited their capacity for growing food.

34. New rural social categories have emerged in Africa: the seasonal migratory worker to the industrial mining and urban centres mainly in Southern Africa; the agricultural labourer on commercial plantations which produce export crops; the individual farmer producing commercial crops for export, such as the cocoa farmers of Ghana or the Yoruba in Nigeria. Statistics indicate that the number of

agricultural labourers is rising, varying from 16 per cent of all wage workers in Ghana to 50 per cent in Tanzania. Migratory workers remain tied to their village communities although they are increasingly integrated into urban life and problems. The agricultural worker on the plantations has developed into a social class, with more permanency on the work sites, in situations of marked hierarchy. The commercial farmers also belong to a growing category typified by the cocoa farmers of Ghana, who have property rights in land and employ labourers in order to produce for world markets. Although fully established class structures have yet to be formed in much of sub-Saharan Africa, the traditional structures have entered a transitional phase that is likely to move towards increased polarization. 7/

35. In much of Africa communal property based on kin relationships remains of prime importance, but so is individual private property ownership, as well as State property and other forms of tenure. 8/ (Pohoryles and Szeskin, 1975) Although the proportion of potentially arable land actually cultivated is still low, population density is quite high in the areas under cultivation. The spread of commercial agriculture, by increasing the economic value of land, encouraged movements to acquire title to land.

36. The relative advantages and disadvantages of group ownership in Africa have been widely disputed. One advantage is the potential for improvement when fragmentation of individual parcels does not take place. The chief disadvantage in a system of group ownership that returns land to the village after each harvest is that it is said to inhibit the incentive for individual farmers to make investments in improving the land. Group ownership also protects against the concentration in the hands of a few estate owners (mainly traders and officials), in which case land may remain unutilized.

37. West and East Africa present striking contrasts in tenure patterns although both developed essentially for export, from the large cocoa, rubber and palm oil plantations of the West, and the small tea, coffee and cotton holdings of the East.

Asia

38. Most countries of South and South-East Asia have an older tradition of living under a single rule long before the colonial experience, and a few major cultures (Hindu, Buddhist, Muslim) have exerted their influence for many centuries. Man-land ratios tend to be much higher, and the use of complicated irrigation systems and intensive farming have been practiced, particularly in South-East Asia, over an extended period. Although the colonial impact was profound as in other regions, it did not destroy ways of life and belief in the vast rural areas of the region. The traumatic effects of large-scale settler colonization were not felt. Perhaps the most significant difference with other regions of the pre-colonial social structure was the existence of a highly complex hierarchy, further complicated by caste in Hindu India. Extremes of privilege and deprivation since early history have been characteristic of the agrarian societies of Asia, particularly South Asia, predating the arrival of the colonialists. Inequality not only had a distributive aspect reflected in property ownership, income and education, but was also basic to the value systems of Asian societies in terms of respect for privilege and the belief that men are born unequal. At the same time, the common characteristics of peasant communities

outlined earlier were certainly prevalent in the traditional Asian village societies--the importance of kinship and neighborhood, of reciprocal rights and obligations, of interpersonal and patron-client relationships, and the village as a social and religious unit. Land was not a commodity to be traded on the market, but rights to the use of land were given to the cultivator by the village community or the chief. Part of the peasant family's output was extracted as a surplus and transferred to the local chiefs or kings.

39. In its approach to land, European policy was largely guided by the view that a system of private property should be encouraged and reinforced by law. Essentially this amounted to an attempt to superimpose on South Asian societies western types of tenure arrangements as they had evolved in fairly recent times, even if it meant ignoring distinctions in the traditional system between rights to occupy land, to receive tribute from it, and to dispose of it. Those who had been entrusted by the Moghul empire to collect tribute and taxes, the zamindars and talukdars, were made permanent owners of the lands on which they had collected taxes, thereby depriving the peasants of their secured rights of occupation. The earlier cohesion of village life was thereby broken. The new landlord's only obligation was to pay land tax. He no longer felt any responsibilities to supply public amenities and security. The growth of population encouraged the demand for tenancy and the raising of rents, or the ousting of tenants who could not afford them. Once land became a negotiable asset, it could be used as security for loans, and in the case of default, forfeited and sold.

40. Moneylender took on a more significant role in the social structure than in pre-colonial times. Particularly where commercial farming developed, the moneylender began to satisfy many of the new demands for credit, for seed, fertilizer and other inputs, as well as cash to cover the cultivator's food consumption requirements since his food crop output was usually reduced in favour of cash crops. Most debt, however, continued to be incurred for "personal" or "unproductive" expenditures. In the Delta area of Lower Burma, peasant cultivation under conditions of substantial equality was practiced at the start of the colonial period. A century later, the rapid development of commercial agriculture, together with the introduction of land sales and the opening of the countryside to moneylenders, had brought one-third of the cultivated land of Burma and nearly half of the acreage of Lower Burma into the hands of non-agriculturalists.

41. There is no evidence that the colonial period in Asia led to any major changes in the level of agricultural technology. Irrigation was extended in some areas, such as the canal colonies in the Punjab, which increased crop output and relieved population pressure, but the benefits were not widely shared as land values went up together with the increase of debt and the eviction of tenants. Improvements were generally swallowed up by the huge increase in population during the later colonial period as a result of falling mortality rates. In retrospect, the net effect of British rule was to change drastically the social fabric of Indian agriculture, but to leave virtually unaffected the basic process of production and the level of technology. The upper strata of this new agrarian society benefitted handsomely. The position of cultivators deteriorated.

Capital needed for the development of agriculture was siphoned off, and the level of total output tended toward stagnation. 9/

42. In South-East Asia, commercial production for export, particularly of rice, had a much bigger impact on peasant society than in South Asia. Without any major increase in agricultural productivity, peasants shifted from growing food crops to export crops, thus becoming completely dependent on metropolitan market fluctuations. A system of forced levies and legal obligation to grow specific commercial crops on peasant holdings through the "Culture System" was started in Indonesia in the 18th Century 10/(Geertz, 1968). The reduction in food crops caused serious famines subsequently. The establishment of plantations in Ceylon and Malaysia called for large imports of cheap labour from India and China, which later created ethnic problems in both host countries. Furthermore, the plantations remained as foreign enclaves, with repatriation of dividends and salaries.

43. The element of agrarian society that was dependent on non-agricultural sources of income, particularly small-scale industry and crafts, lost much of its livelihood in Asia during this period. The best documented case is that of the textile industry in India, as well as the weaving, ship-building, metal founding industries in Java. Similar domination by the trading companies, the imposition of the free trade doctrine under unequal conditions and the technical progress of European industry, all combined to destroy large sources of rural employment. Overall, however, it was the introduction of European property concepts in land, the growth of population and rise of commercial agriculture and monetization, that changed the village structure in South and South-East Asia.

44. As Myrdal 11/ stresses, however, the Asian village cannot be thought of as either harmonious communities or sharply polarized confrontations between rich landlords and impoverished tenants. Typically it is an hierarchical system consisting of several groups linked by a network of economic and social relationships, with landlords at the apex of the pyramid and landless labourers at the bottom. One category of landlords are the big, ex-feudal type who have a much less important position today, after land reforms. Another group are non-cultivating owners to whom rent from land is a subsidiary income source. Both these categories are usually absentee landlords, viewing land as an investment or for speculation. Another category is that of the "owner-cultivators" who, although living and working in the village, usually lease out some of their land (also called 'peasant landlords'). Distinctions between the next two groups--peasants and share-croppers--have become blurred because of the need for many peasants to share-crop additional land in order to meet family needs, and both categories may need to supplement income from cultivation with hiring themselves out as wage-labour. Thus they overlap with the lowest rung of the social ladder--the landless agricultural labourer--who has no claim to land either as an owner or share-cropper. This landless category has probably grown the fastest of all, as population increase and the rise in debt forces larger numbers of small farmers to sell their plots to the more prosperous farmers who took on moneylending functions during the colonial period.

45. As broad orders of magnitude, the landless constitute over 30 per cent of the agricultural population in South Asia, with the proportions considerably

higher in parts of Eastern and Southern India, and in Bangladesh. Peasants, with between one-third and one-half of the land, usually number more than half the agricultural population, while landlord categories with about 10 per cent of the population occupy well over one-third of all land.

46. This grouping according to landownership also denotes a social hierarchy, with the ownership of land enjoying the highest status and the performance of manual labour the lowest. To abstain from work altogether is the best position followed by one of supervising labour. To work on one's own account comes next, which applies both to peasants and sharecroppers, but not to wage-labour which, working under the supervision of others, gains only contempt. These values are not directly related to economic status since wage-labourers may have considerably higher incomes than both sharecroppers and peasants who own their own minifundia. Caste tends to reinforce these land-occupational differences; studies showing a high correlation between caste ranking and the ranking of rights to land. At the same time, social mobility is normally concentrated in the peasant and owner-cultivator or peasant landlord groups, as landless sharecroppers or labourers rarely acquire land. Groups above them are interested in making sure of a labour reserve for cheap hiring on their own lands, and any land distribution to landless labourers would tend to drive up wage rates to their detriment. In parts of South Asia, such redistribution would also be seen as violating caste rules.

47. The dependency of landless labourers on the landlords or rich peasants for work and on the moneylender (who may be the same landowner) for their families' consumption loans, makes them reluctant to oppose or confront landowners in any way, however exploitative the relationship may be. They would not agitate for higher wages as that might result in losing whatever employment prospects they have. They would not favour abolishing the moneylenders, if they were to be replaced by credit institutions unwilling to provide them with personal or "un-productive" loans for marriages, dowries, etc. Even ordinary peasants are dependent on the richer landowners for credit and for additional land to lease. Over an issue such as agricultural prices, villagers will have conflicting interests according to the economic group to which they belong. Peasants with a surplus for sale evidently favour higher prices, whereas the poorer peasants, sharecroppers and landless labourers, who are net purchasers of food, have an interest in keeping prices low. At the same time, low prices will also reduce the demand for labour, and therefore the employment prospects of the poor.

48. It is this conflict of interests and dependency of the poor on the local rich within the village social structure that is chiefly responsible for the apparent passivity and stability of Asian agrarian societies.

The Significance of Land Distribution and the Case of Land Reform^{1/}

49. "The basic principle of a true reform is that the benefits derived from the utilization of land must go to those who work it" (Special Committee on Agrarian Reform, FAO, 1971).

50. The distribution of land is the principal determinant of rural social structure providing the basis for power, status, and access to public goods and all the inputs required for future growth. In most poor countries there is a small sub-sector made up of large farmers producing mainly for the market while the overwhelming majority of the agrarian population of the Third World have access to land only in small operational units. Among them, a large proportion are tenants and share-croppers, while the growing percentage of landless labourers provide only their labour on land owned or rented by other families.

51. Introduction of capital and technology into a system characterized by large disparities in rights to land and other assets increases the polarization of economic opportunity, even to the point of evicting tenants and other small farmers from their land. Conversely, a restructured land tenure system can open up new opportunities for a wider application of new technology. The structural transformation of present-day industrialized countries took place following a separation of a large section of the ruling class from direct ties with the land. The absence of such separation in most of the Third World makes it difficult to make major changes in the land tenure structure. 12/

52. Equitable distribution of land contributes simultaneously to extra output, to extra employment and to improved income distribution. There is a large body of evidence that demonstrates the inverse correlation between farm size and output per acre. 13/ (e.g. Berry and Cline, 1976). Small operational units also use much more labour per acre. 14/ (e.g., Kos USAID, 1970). "Land must be viewed not merely as a resource to be efficiently combined with scarce capital so as to maximize agricultural output, but also as a vehicle for employing people and for developing their skills and experience. Indeed the manner in which increased production is achieved, and the number of people who participate in and reap benefits from the experience, may be as significant as the short-run production increase itself." 15/

1/ Land reform may be defined as "significant and purposeful changes in land tenure i.e., changes in ownership and/or control over land and (where appropriate) water resources. The specific measures to achieve it may include: expropriation of large estates and the distribution of land among the tillers, either for individual ownership or operation or for collective use; abolition or improvement in tenancy conditions by converting tenants into owners or by reducing rental payments; issuance of land titles to the tillers to provide them with greater security; and transformation of other traditional forms of tenure in the interests of the cultivators of the land". 16/

53. The conditions of the landless or of poor farmers who have to work with sub-marginal plots or minifundia do not allow them sufficient resources with which to operate. "Poverty cannot be eliminated by working only with the poor. The poor need resources which are controlled by others. The separation of production policies from distribution policies is frequently defended by pointing out that unless and until production is increased, there is little to distribute. This argument is not convincing. Indeed, it sounds too much like a rationalization of the well-to-do trying to protect their privileged position. Given the circumstances existing in many of the less developed countries (a concentration of property ownership, a redundant, poorly organized labour force lacking bargaining power, and the inability to finance and administer needed social welfare programmes) those who own the means of production also receive the income from their use. Increased output is more or less automatically distributed in the very process of its production. There is nothing left to distribute." 17/

54. The argument is widely heard that redistribution may be possible and even necessary in regions of South America or Africa where land-man ratios are high, but not in the densely populated regions of South and East Asia, where the average size of holding is already very small; that egalitarian redistribution in the latter case would make all the new holdings uneconomic. Even in South Asia, however, averages conceal the fact that landownership is highly unequal. The potential effects of imposing a land ceiling of, say, five acres per household as well as a minimum of 1-5 acres per household in rice regions (also eliminating absentee landholdings and a ceiling on temp holdings of 25 acres) was recently explored for villages in a South Indian district (Chignleput in Tamil Nadu State) where population densities are among the highest in the country. There would be tremendous opposition to implementing such a change from the landed elites and even from middle-sized farmers. Also any successful land reform would need to be supported by credit facilities, training, or possibly farming co-operatives, but there is no alternative if the productive force of the poor is to be released.

55. It is likely that an egalitarian land reform will have the immediate effect of increasing the proportion of output retained for the family consumption of those who have benefitted from the reform. "If there is not enough land in the village, to feed everyone when it is distributed at, say, an acre or two per family, still somehow (the argument assumes) there is enough land (same village, same land, same number of people) when it is owned by half the village and the other half, still working the land, are totally landless. The question is, of course, developing the productivity of the land.... The major purpose of land reform is to give to those who are already working on the land an actual part in the power that comes from owning it, an actual role in the decision-making regarding its use, and a commitment to put their labour into developing it." 18/

56. The status quo in existing land distribution has been supported by the widespread belief that reform would disrupt production by the formation of farm units in which modern techniques cannot be applied. Evidence of the consequences of land reform for agricultural growth rates is mixed. There are some countries that have experienced high rates of agricultural output increase after land reforms while others have been slow. The same is true of countries that have not had significant reforms: in some, high rates of growth and in others, low rates. (Data for 1950-68 from USAID, quoted in Dorner 1972).

57. An egalitarian and secure tenure structure favours the undertaking of capital investments by farmers on their own land with their own labour, whereas large landowners frequently shift their investment funds to urban activities (e.g., real estate speculation) that promise a higher money return. Lack of tenure security inhibits the making of any farm improvements such as levelling and terracing, tree planting and drainage. For the purposes of financing investments in non-farm sectors, much has been made of the contribution of the agricultural sector of its food and labour surplus. The normal assumption has been that the surplus could be more easily obtained from a big landlord dominated agriculture whose savings could be taxed away or transformed through unfavourable terms of trade. In practice, in most Third World countries, it has proved extremely difficult to tax landlords, while those countries that have demonstrated a large shift of investment resources from agriculture to industry (e.g., Japan, U.S.S.R., Taiwan, Mexico), have done so after major land reforms, either through a small farm structure or through collectivisation.

58. Agricultural export-led growth favours the channeling of resources to large farms, while small farms continue to produce food-grains for subsistence and domestic consumption. In Central America this process had led to a huge displacement of small grain producers by those large farmers producing cotton for export while having to import large quantities of food-grains. Particularly when exports are encouraged through large plantations managed by foreign firms, the negative effects of repatriation of profits and the establishment of enclaves with minimum linkages to the rest of the country add to the social costs of displacing large numbers of small farmers. (Johnston, 1970)

59. In conclusion, land reform is very much part of a participatory, distributive growth strategy. It is the key instrument for the creation of agrarian institutions that give a voice to the rural majority. Once it has taken place, broad, co-operative sharing of effort becomes possible. There is also less danger of suffering from the polarizing effects of new technologies. It is only a first step. It requires constant support and constant monitoring as inequalities and consolidation re-emerge. The forms of tenure are likely to evolve into new patterns as a result of population growth, sectoral shifts; or from individual to co-operative or collective ownership or vice-versa. But the contribution of land reform to rural development lies above all in providing the poor with resources for growth and in altering the structure of political power in their favour*

Co-operation or Conflict

60. Many of the development programmes that seek to improve rural living conditions ignore the complicated local relationships of wealth, power and dependency among the different social groups. International agencies are inhibited in exploring these relationships and their implications for the changes they help to introduce.

* Simple tenure or tenancy reform, i.e., strengthening the legal rights of tenants against eviction or imposing ceilings on rental payments, has not been discussed as a special case because of the general opinion of its inefficacy and difficulty in implementation. (See Johnston and Kilby).

61. Rural inequalities, however, are highly significant and cannot be ignored in rural development planning. In addition, to economic power, the rural elite wields political and social power through control over village and local institutions including co-operatives, marketing boards and the instruments of local government. Through their position in national political institutions and personal links in the administration, their interests are upheld in national policies. An indication of the influence of the rural elite is the low level of agricultural taxation even after huge profits made possible in certain areas through the Green Revolution 19/ (Mencher, 1978). At the same time, in their situation of dependency, the rural poor find it extremely difficult to organise in opposition to the landowners and rich peasants. Within the isolated village, it is easy for the more prosperous to crush any attempts by the poor to change the status quo.

62. A study of the results of peasant uprising in West Bengal in 1967-70 dramatized the conflicts that exist between the different strata of the peasantry and their links with various political parties at the state level. In the end the principal landlords had been dispossessed of their land. The "viable share-croppers", who can normally subsist by working their own land rather than as wage-labourers, asserted their rights with great militancy, using the organisational help of the political party at the local level. The small share-croppers and the landless labourers, by contrast, were helpless as they tried to appease the wrath of the landlords. They still need employment and consumption loans. "Panch Naska' has 8 acres of land; he can afford to be a militant, said a landless labourer. But what about me? I am a little fish; can I fight with the alligator while sharing his territory?" 20/

63. Another recent study reflects the cohesiveness sometimes encountered in Third World communities. The story is told of a Samoan who returns to his village after overseas training and tries to encourage interest in commercial agriculture. The lessons from failure pointed to three, widely shared Samoan values: the importance that one family should not get ahead of others, a sense of mutual dependence and obligation to ensure group security, and respect for social hierarchy. The proposed changes were not accepted because they threatened these values. Although they wanted the extra purchasing power to acquire foreign goods, the villagers would not sacrifice for them social rules considered necessary for the integrity of the community. "The real barrier to communication of western economic ideas was neither village ignorance nor communication techniques. The real difficulty seemed to lie in an inherent conflict between western and Samoan ways of looking at life - a basic difference in what they considered important" (V.F., Ala; Ilima, 1976)21/The authors felt that the best way to introduce changes without destroying Samoan society was to allow Samoans to experiment with new solutions in their own villages and, through group discussion, build a consensus for change.

64. As argued above, when there are wide disparities in land ownership, the status and economic power that goes with it leads to the control of local organizations by the rural political elite. The situation is exacerbated by emphasizing decentralization, rural self-help and grass-roots participation, and shifting the center of decision-making to the countryside; there is then no countervailing power to that of the rural elite. The prerequisite for decentralization,

therefore, is a radical redistribution of assets, power and social status. (An alternative is to continue centralized decision-making and control but to circumvent the rural elite and channel programmes and benefits directly to the poor. This strategy demands a level of administrative determination, capacity and incorruptibility, as well as detailed knowledge of the local situation not readily found in any country).

65. A redistribution of assets usually calls for production co-operatives and group farming, where resources are pooled and non-farm activities are promoted together with cultivation. In the initial stages, considerable government help in the form of leadership, management and finances is necessary. Also the success of rural co-operatives presupposes a modicum of social equality, political democracy, and economic viability among the villagers, preconditions which are often absent. What is happening, therefore, is that the co-operatives are being asked to create their own preconditions, to reconstruct village society so that the ordinary peasants can make effective use of the co-operative method. This is too much to expect. 22/

Relationships Between the Rural Community and the Government

66. Many of the past failures of programmes involving peasant participation have been blamed on previous relations between peasant communities and the government (bureaucracy and technicians alike). Anthropologists, in particular, have ascribed difficulties in implementation to a lack of sensitivity to cultural and social influences on peasant behaviour. On the other hand, the anthropological tradition has been to treat peasant communities in isolation, examining social relationships, cultural values, the "moral unity and solidarity" of communities, while usually playing down the importance of social conflict. Also inadequate attention has been given to community links to the wider society, to urban centers, regional authorities, the central state, and to foreign centers of decision-making.

67. It was commonly thought that the city was the source of social dynamism. Rural under-development was a cultural problem because of peasant conservatism. An outside stimulus was therefore required to shake them out of their low-level equilibrium. Although this view still carries considerable influence and accounts for much of the paternalism in government interventions, it has been often challenged. Peasant inward-looking conservatism, suspicion of outsiders and introduced ideas, is their rational response to adverse political, social, economic and ecological circumstances. They must be seen in **relationship with the national political systems** of which they are a part. 23/ (Wolf, 1966) "Though this relationship is complex, containing economic, social, political and cultural elements, it is characterized by a constant competition over resources and services. When the State is strong, peasants are systematically taxed and are integrated into the national system. When the State is weak, they retain a higher degree of autonomy and a greater share of their produce. The peasantry cycles back and forth between the poles of autonomy and integration, according to the vagaries of nation-state political fortunes and local economic conditions" 24/

68. Three levels of interaction are important for analysis: The domestic group or peasant family farm, the rural community, and the state. All three elements have their own self interests and may clash with each other over resources although they are clearly interdependent. Within the community, individual domestic groups

defend their self-interest. The community, although it may have some degree of control over its internal affairs, has to fulfil its obligation to the state. Typically, there are village leaders or others of the community who act as intermediaries with the state. Of special interest to development programmes is the interaction between indigenous community institutions, such as traditional councils, occupational or caste groupings and work-sharing arrangements, and those promoted by the state, such as the village head-man and tax collectors, elected village boards and district councils, and co-operatives for credit and marketing. Local branches of political parties complicate the picture further, sometimes assuming developmental functions (especially in one-party states).

69. A government can undermine community initiative and dynamism with excessive injection of resources, leading to a hand-out, dependent mentality. This point conflicts with the need expressed earlier for a very active initial role for the state to provide the managerial and technical impetus to community organizations.

70. Balancing local and state demands therefore becomes crucial, and changed conditions at either state or local level can change the balance. Ecological changes such as those from population growth or the introduction of new systems of cultivation, irrigation and crops, will, on the one hand, affect the amount of surplus or labour available for the state, and, on the other hand, the value of land, capital requirements and trade relationships of the community. How the state deals with the community - i.e., through local notables, elected representatives of tax officials - will also have different effects on the community-state relationship.

71. From a system of subsistence peasant farming to one of diversified, technologically advanced commercial farming in which the state has to shoulder an enormous increase in responsibilities, is a transition that took centuries for the developed countries of today. It would appear prudent to plan and control the speed of a comparable transition in newly independent Third World countries in keeping with the growth of their financial, technical and administrative capacities. In the enthusiasm of raising productivity and introducing new crops and techniques (often encouraged by technical co-operation) many basic changes have occurred in agrarian society which make it dependent on government involvement, often at a level exceeding the capacity of the government apparatus. The consequences could be serious. An over-hasty transition could mean inability to continue to meet the basic food requirements of the people.

CHAPTER V - THE NATIONAL FRAMEWORK, GOVERNMENT STRATEGIES AND POLICIES

1. Although subject to domestic political changes, a certain "development style" characterizes the path that most countries take over a period of time, molded by historical influences and reflecting the roles of various social groups in the power structure. The time-frame for examining the development styles of Third World countries is much shorter than for the Western industrialized countries because of more frequent political changes. It ranges between 10-20 years, thus spanning several "five-year plans" that are the normal background for programming technical co-operation. This report submits that the policy trends established during this intermediate time-frame are more relevant for the rural development process than the macro-objectives and sectoral targets established in short-term national plans, although the latter are also essential elements for analysis.
2. National development styles reflect the degree to which the economy is market oriented or centrally planned, the extent of private or social ownership of the means of production, and the nature of incentives; the importance given to equity, if necessary through major changes in socio-political institutions, and basic structural reforms; the degree of devolution of authority to regional and local organizations and of participation in decision-making; the extent to which the economy is open or closed to foreign trade and the degree of dependency on markets for a few export commodities; the nature of the technology choices made in the main productive sectors and the degree to which efforts are made to build up indigenous technological capacity; the choice of "lead sectors" in the development process; the translation of resource allocation, inter-sectoral transfer and technology choice decisions through fiscal, price and exchange-rate policies, and urban-rural terms of trade.
3. These factors determine the direction of rural change, and they must therefore be taken into account in designing any intervention for rural development. This chapter will explore the range of national policy options adopted by different governments, indicating those which appear to be particularly favourable to rural development. The reader should keep in mind the linkages described in the previous chapter, as the treatment of factors (excepting the sections on structural reforms and administration/local organizations) is again treated sectorally. The last part of this chapter attempts to draw together those elements that might constitute the basis for an ideal rural development strategy under varying socio-political conditions.

National Plans and Sectoral Resource Allocations

4. The most obvious indicator of the economic strategy adopted by a government is the way in which it divides up the investment funds at its disposal. Priorities depend on the contribution that each sector is expected to make in meeting the needs of the society and in resolving the problems of the economy. Allocations to agriculture have usually been justified in macro-economic terms, to attain the sectoral growth rate necessary for the planned increase in GNP. The linkage between agricultural and industrial development has frequently been stressed: the products of industry are required to raise agricultural productivity and increases

in agricultural productivity and a marketed surplus of farm products are essential for industrial growth. "Industrialization moves on its stomach." 1/

5. A basic problem stems from intra-sectoral allocation: in agriculture, between the commercialized "modern" sector and the subsistence "traditional" sector; in industry, between small-scale, rural-based industry and large-scale, urban-based industry -- with different effects on incomes and employment. For purposes of rural development, allocations to the rural economy as a whole have to be considered particularly as the need for non-farm employment becomes more acute.

6. According to the evidence collected on gross marginal capital-output ratios, agriculture's share in investment has been far less than warranted, considering its share in output and in employment 2/ (Szczepanik, 1975). Its ratio of extra capital to extra output is twice as low as that of non-agriculture, and if price distortions are corrected, the differential would be even greater. It has been estimated that in a country with 45 per cent of its output attributed to agriculture, the share of investment in agriculture should reach 55 to 60 per cent of the total whereas in reality it is typically no more than 25 per cent. 3/

7. According to central government figures for 1973, the percentage share of agriculture in the total capital expenditure ranged from 1.6 per cent to 76.1 per cent. Lumpy capital investments no doubt contributed to large differences from one year to the next, but in general the allocation to agriculture in most Third World countries was less than 20 per cent.

8. In many countries, capital expenditure on transport (sometimes including communications) far exceeded allocations to agriculture. Industry allocations were also much higher than for agriculture. Allocations to education and health ran much lower in all regions, at about 10-30 per cent of those to agriculture. On the other hand, these social sectors, particularly education, absorbed a larger share of the current expenditure totals of central governments. In most countries, current expenditures on defence and security ranged as high as the proportion on education (15-25 per cent) and sometimes much higher.

9. In a recent comparative study of the current national plans of 39 Third World countries (United Nations, CDPPP - 1977), development objectives and sectoral allocations were examined. It was clear that achieving the maximum rate increase of GDP is the priority objective of these plans. Although agriculture is receiving more attention than in the past, all except two countries expect agriculture's share in total output to decrease. Nevertheless, agriculture is expected to continue to dominate the economies of all the African and Asian countries, viz one-third to 60 per cent of total output.

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10. Employment has also received more prominence in these plans. Nevertheless, among those countries that have set employment targets, the labour force is expected to grow faster than new employment opportunities. Although the rate of increase of agricultural employment is expected to be lower than that of industrial employment, the largest numbers will have to be absorbed in agriculture, given its sheer weight in the economy.

11. More attention has also been given in these plans to reducing income and regional disparities. Although data deficiencies preclude establishing quantitative targets and precise measures, the Algerian Plan sees a reduction in rural-urban income differentials, as well as a rise in the share of the poorest 10 per cent of the population (whose per capita income is expected to rise twice as fast as the national average). A number of Latin American plans have explicit distributional objectives. Asian countries such as Bangladesh, India and Malaysia have established objectives of raising the percentage of population above a "poverty line" or of satisfying minimum needs. The significance of rural development as a means of helping the poor has been recognized in a number of plans, as well as the need to provide public services to raise their living standards.

12. The intended allocation of investment resources among the sectors shows that a planned shift to the category of services (education, health, housing, administration and defence) from the earlier almost exclusive preoccupation with the development of national production (agriculture, mining and manufacturing) and basic facilities or infrastructure (power and utilities, transport and communications). This shift seems to indicate the greater importance given to distribution, particularly in the case of countries in the middle-income range. Countries that plan to spend less than 10 per cent of investment funds in agriculture are those with large mining or extractive sectors. Those that are predominantly agrarian allocate 34-36 per cent to agriculture, although three countries are allocating less.

13. The role of the private sector in total investment is greatest in Latin America. At the other end of the scale are Afghanistan and Bangladesh with about 10 per cent for the private sector. In agriculture, although most production is in the private sector and much on-farm investment is undertaken by the farmers themselves, governments have to assume a large share of investment in irrigation, land reclamation, and so forth.

14. These investment allocations for rural development demonstrate that, in spite of limited shifts in favour of agriculture and social services, the planned budgetary allocations and underlying development strategies of most Third World countries have not undergone any basic change. It is not possible to say how much of non-agricultural allocations are for rural areas. For these allocations to favour rural development rather than urban concentration, however, would require such a fundamental break with the past that those cases would be well known (e.g. Tanzania). It may be assumed without much fear of distorting the real picture that the allocation of agriculture accounts for over three-quarters of all investments for rural development in most Third World countries. This percentage has not increased significantly. In fact, even in some predominantly agrarian economies agriculture's share has declined.

15. The People's Republic of China has consistently provided a counter-example to the urban-industrial model of development. "Balanced development" has been a basic tenet of the Chinese development strategy: a broad sectoral "balance" between agriculture, light industry (consumer goods) and heavy industry; regional balance; and the utilization of modern and traditional technologies. Heavy industry has been recognized as the key sector deserving priority, but that it can only develop with the surpluses generated by agriculture and light industry and by allowing mass living standards to rise through agriculture.^{4/} Most of the raw material, labour and financial inputs for industry were seen to come from agriculture, and agriculture was also regarded as providing a market for industrial goods. A degree of interregional balance through increased regional self-sufficiency to stimulate resources mobilization was also seen as a goal of decentralized planning.

16. As in China's development strategy, higher allocations to rural development are necessary not in opposition to industrialization and a high rate of economic growth but as a prerequisite to a viable, long-term process of industrializing growth. If agriculture is not provided adequate investment funds, then commodities, workers, savings and markets are not likely to be available on the scale required for sustained industrial development. Consequently, a major increase in inputs is needed in the initial stages. During that period, the form of industrialization should be encouraged which provides farmers with the producer and consumer goals they require.

Agricultural Development Strategies

17. An emerging objective among governments has been food self-sufficiency, viewed in terms of reducing foodgrain imports, rather than one of producing food under conditions that provide everyone with the ability to consume adequate quantities of it. Government intervention to achieve this objective may be according to the three categories: (a) public investment in agricultural infrastructure and supportive systems, also in state farms where these exist; (b) modification of the economic environment through incentives and deterrents, usually price, tax and trade policies; and (c) direct intervention to re-distribute assets.

18. Measures to expand agricultural output are becoming more comprehensive. Previously, emphasis was on (a) ensuring a smoothly functioning marketing and distribution system including farm-to-market transport facilities; (b) removing constraints to supply through e.g., land reform, colonization schemes, co-operatives, water management, mechanization, subsidized fertilizers, credit facilities, distribution of high-yielding varieties, etc. There is now a tendency to apply a systems approach to agricultural development through a comprehensive set of measures: organizing input supplies; providing basic services such as research, training and extension; constructing rural infrastructure; and organizing package schemes for the encouragement of particular crops.

19. For the purpose of simplifying the range of agricultural strategies followed by Third World countries, it may be helpful to use the unimodal/simodal classification 5/ (Johnston and Kilby 1975). Examples of the "unimodal" or "modernizing" group of countries include Japan, Taiwan, Yugoslavia, Korea and Israel, while most of the other Third World countries fall into the "dual" or "bimodal" group, 5a/ meaning those countries which show a distinct separation between a minority of large operational farm units (which produce most of the marketed surplus and which contribute most of the agricultural growth) and the majority of small holdings which belong to the subsistence sector. Whatever the landholding pattern, certain elements are common to all countries that have achieved high rates of agricultural growth: the spread of technical knowledge following a major effort in applied yield-increasing research; a large increase in irrigation and in the application of industrial inputs to agriculture, particularly fertilizer and pesticides; and a simultaneous growth of industry and non-farm employment.

East Asia

20. 6/ In the case of Japan, the new technologies that were introduced in the Meiji period brought knowledge of the scientific advances made in plant nutrition and crop rotation by European farmers. Organized research and the expanded use of commercial fertilizer started in the 1880s, and small irrigation and land improvement activities were encouraged. Research focussed on improvement in rice cultivation based on the best of traditional methods, from raising seedlings in nursery beds to transplanting, weeding and irrigation practices. Improved man-powered implements included rotary cultivator-weeders, rotary foot-pedal threshers and short-soled ploughs. Much research went into raising yields in the cultivation of raw silk, a major contributor to the country's industrial development.

21. After the Second World War, agriculture benefitted from land reform, which freed the purchasing-power of tenants from large rental payments, and from higher prices for rice. The use of small power tools such as tillers, reapers and machines for transplanting rice was a feature of the period, as was a large expansion of part-time farming, as non-farm opportunities opened up. However, Japan's agricultural expansion is mostly attributed to biological and chemical rather than mechanical innovations. The scarcity and high price of land obviously made it worthwhile in Japan to press for higher yields, and the labour-intensive strategy adopted to accomplish this was the result of an attempt to make the best use of abundant labour and build on the country's own resources.

22. Taiwan's experience has been similar and was, in fact, largely influenced by Japan. Its agricultural growth performance even exceeded Japan's as crop production grew at an annual average rate of 3.5 per cent from 1911 to 1964 (barring the World War II decade 1940-1950), and factory productivity rose at an average rate of 2.5 per cent in the same period. Japanese advisers and experts assisted in

establishing a research and extension network. The raising of rice yields was again the major objective of research. Other advances included the relay-interplanting of crops to raise cropping intensities and farm incomes and simple mechanical innovations. There was also a large programme in developing infrastructure, notably irrigation works and road and rail transport. Village organizations (pao-chia), irrigation associations for construction and maintenance, and agricultural associations for extension work were also developed. High rates of primary school enrolment helped to make farmers receptive to innovations.

23. The large influx of mainland Chinese made it possible to undertake the "Land to the Tiller" land reform programme in 1953, bringing most operational units in Taiwan close to the average size of one hectare. The unimodal character of Taiwan's farm units has allowed the country to cope with a high rate of population and labour force growth. Not only did agriculture absorb a 50 per cent increase in the labour force in a 40-year span, but the average number of days worked per year also doubled.

24. A noteworthy feature of Taiwan's experience was the consistently large net transfer of resources out of agriculture, particularly in the early decades of major industrialization effort. The early transfers took place through land rent, interest, taxes and private transfers through financial institutions. In the post-war period agriculture was heavily "taxed" through a state-administered rice-fertilizer barter scheme in which the price ratio was highly unfavourable to the farmers. These transfers were possible because of the small dependence of Taiwan's farmers on purchased inputs, particularly fixed capital.

Latin America

25. Mexican agriculture exemplifies the dual structure in contrast to the "unimodal" strategies just discussed. Again, aggregate agricultural growth performance has been impressive over a long period since 1940 (averaging 4.7 per cent annually from 1940 to 1953 and 3.7 per cent from 1954 to 1965). An increase in the area under cultivation accounted for much of the growth in the 1945-56 period, while yield improvements showed a major rise in 1961-64.

26. As with Japan and Taiwan, crop research and irrigation investments have been the major contributors to the increase in agricultural yields. Research into maize and wheat (accounting for 72 per cent of all harvested land in the country at the time) was the main emphasis, but the farming systems to which the research was applicable were in the better-endowed commercial farming areas of Mexico. Thus, while the wheat research programme was spectacularly successful in raising Mexico's yields to the highest in Latin America, it involved only 50,000 families on mainly large-scale, irrigated holdings. Average maize yields, by contrast, remained among the lowest on the continent, involving an estimated two million families farming an average of three hectares each of rain-fed land. Most of the production increase took place in the large-scale commercial farms of the northern part of Mexico where 65 per cent of public investment in irrigation has taken place and which has also benefitted from most of the credit, subsidies, external capital and technical assistance. The sharp dichotomy in operational units also helped to spread tractor farming and mechanization. Only in the last

few years has a major effort been made by the Mexican Government to give greater emphasis to smallholder agriculture in the less favoured regions.

27. Mexico is illustrative of several countries where a thorough-going land-reform was followed by a shift in government policies in favour of large-scale, commercial farming. Between 1934 and 1940, more than twenty million hectares were distributed to 810,000 beneficiaries, and the number of landless in Mexico dropped from 68 per cent to 36 per cent of the rural labour force. The main form of tenure in the reformed area was the ejido, a village-based communal landholding system with historical roots in pre-hispanic times, where members of the rural community were assigned land to work and leave to heirs but not to sell or mortgage to outsiders. The strategy was to have a prosperous rural peasantry able to share gradually in the benefits of a decentralized pattern of industrialization. As one of the government officials of the time was quoted: "We have dreamt of a Mexico of ejidos and small industrial communities, electrified, with sanitation, in which goods will be produced for the purpose of satisfying the needs of the people, in which machinery will be employed to relieve man from heavy toil and not for so-called over-production." (Cynthia Hewitt) By 1940, ejido holdings made up 48 per cent of all cultivated land and 51 per cent of total production, and farm production grew at an annual average rate of 5.2 per cent.

28. Subsequent administrations, however, followed a different agricultural strategy. Priority was given to urban industrial development based on import substitution. Public investments shifted from the rural areas and categories such as public health and welfare to physical infrastructure to stimulate manufacturing enterprises in a few cities, with a resulting high rate of migration to the towns. Ejido and smallholder agriculture were viewed as inefficient, and government effort was concentrated on extracting the largest possible marketable surplus of food and fibres from the rural areas by selling newly-irrigated land (created by public funds) as private property for large-scale private farming. "The tendency of the post-Cardenas agricultural policy was thus to polarize the farming sector by leaving subsistence farmers without federal aid and by depending on the production of foodstuffs in irrigated cases, increasingly dominated by the private sector." //

29. The Mexican type of agricultural strategy can be observed throughout much of Central and South America, although its success even in aggregate output terms has been less pronounced in most countries. Production increases have been impressive in a few export cash crops and in livestock production, but not in the food grains consumed by the majority of the population. (Wheat production in Brazil is a significant exception in the last decade.) Overall, food production in the Latin American region has been growing at about the same rate as population (about 3 per cent), and in many countries per capita food production has been declining. (FAO, 1976) Since the early 1960s, food imports to the region have grown 60 per cent faster than its agricultural exports. "While the traditional latifunda-minifunda complexes are slowly disappearing, they are being replaced

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by dual agricultural systems of large commercial farms and dependent small-holdings associated with rapidly growing numbers of landless rural labourers." 8/ (Barraclough, 1977)

30. These adverse developments have taken place despite the fact that Latin America has a cropland-man ratio higher than the world average, and the potential for expansion of the cultivated area is very great (estimates varying from five to ten-fold increases). Even in the densely-populated Andean regions productivity levels were higher in pre-Colombian times than they are today. Efficient technologies that are available are frequently not being used due to the marked dual structure of Latin American agrarian society. The modern commercial sector, growing fast in comparison with traditional agriculture and with productivity levels five times as high, accounts for about half of the region's gross agricultural production, 30 per cent of the cultivated area, and 20 per cent of the labour force.

31. The comparative advantage of using cheap labour is not perceived as such by the large landowners with machine technology available to them at subsidized prices and wary of peasant organizations and the problems of managing a large labour force. The way commodity systems and markets are organized reinforces structural dualism in agriculture. The small farmers who produce most of the food in Latin America have to contend with high costs of purchased inputs and low prices for commercial output. The problem of limited effective demand has become one of the major constraints to increased food production. While hunger and malnutrition have been increasing in several countries, over-production in terms of market demand has caused stocks to rot and prices to plummet. Commercial farming on the best lands is increasingly oriented to export markets and to the special food demands of high-income consumers where profits are highest, rather than to the production of basic food staples. Wheat, meat, sugar, soya, coffee, fruits, vegetables and cotton are the crops that have grown the fastest, not maize, beans and potatoes. Consequently, most governments of the region have found it more convenient to import food-grains than to undertake the re-distribution measures that are required to alter the pattern of demand as well as the production structure.

Africa

32. With some significant exceptions such as Tanzania, Algeria, Somalia, dual structures have been rapidly evolving in most countries of post-independence Africa. Kenya is a typical and well documented case. 9/ The 1972 ILO employment mission to Kenya provided much information on the increase in social stratification and income inequalities since 1960, a period characterized by rapid economic growth at about 6.5 to 7.5 per cent per year. 10/ When the two colonial obstacles to African agricultural development were lifted, namely opening the fertile highlands to Africans and allowing them to grow competitive cash-crops, there was a dramatic increase in the peasant or small-farm share of the value of marketed production, mainly coffee (from 17.9 per cent in 1957 to about 50 per cent in the mid-1960s). Private land tenure thus spread rapidly, and land registration is

practically complete, not only for the agricultural land but also for a substantial portion of the pastoral area converted into ranches. The incentive for land registration has been closely tied to the government's policies for providing credit and associated extension services, mainly to those with individual titles.

33. Settlement schemes were started in Kenya in 1961 to encourage high-density settlements in the highlands by smallholders. By 1970, half a million people (or 4 per cent of the total population) were settled on 1 1/2 million acres or 4 per cent of the country's agricultural area (one-fifth of the highlands), providing a living standard above that of subsistence to peasant producers. Further expansion, however, was not contemplated because of failure to repay loans and a prevailing notion that large-scale farming was more efficient.

34. In the period 1966-70, about one million acres of the highlands were transformed into large-scale African farms, and ultimately it is expected that the ratio of settlement schemes to large-scale farms will be 40:60. Performance of the large-scale farms both in terms of output and in repaying loans, has been much worse than that of the smallholder settlements. Nevertheless, crop finance as well as land-purchase loans have also gone mainly to the large farmers.

35. The large African farmers have had a growing influence on the policy-making organs of the Kenyan Government and of the various marketing boards. "Not surprisingly, the general result was that the protected position of the large farm sector was left substantially intact. Large subsidies continued to be paid to large-scale producers of maize and wheat through the price structure and by all taxpayers to all large-scale farmers through the fertilizer subsidy." 11/

36. The important question is how this dual structure is likely to affect growth prospects in the long run. Certainly, the growth of agricultural production at an average annual rate of 4.5 per cent from 1964 to 1969, indicating higher yields and technical innovation, has been above average for the Third World. However, the concentration of wealth and income raises doubts about the effects on domestic demand and on efficiency (in a situation where the large farmers can protect their monopoly interests through political influence), quite apart from considerations of equity and self-reliance.

South Asia

37. India and Bangladesh provide examples of quite similar agricultural development strategies where the dual structure is not as marked as it is in Latin America. Population densities are, of course, much higher. As in Taiwan and Japan, the rice crop is of major significance. The use of high-yielding varieties has been successful mainly for wheat in India and for rice in the dry season in irrigated areas of Bangladesh. The potential for irrigation is still large: in India, the irrigated area of 35 million hectares could be doubled, while in Bangladesh, the present irrigated surface of 1 million hectares could be quadrupled through small irrigation works and major flood control schemes. (Etienne, 1977). Package programmes combining water management, chemical fertilizer, new seeds and pest control in the 1960s accounted for improved agricultural performance in both countries, with production averaging 10 million tons in India and Bangladesh

respectively by the late 1960s. It has been estimated that, for Bangladesh, it should be possible to reach an annual production figure of 30 million tons by the year 2000 keeping well ahead of the estimated population increase of 60-70 per cent. For India, it appears that a target of 200-230 million tons of food grains should be feasible, if the spread of yield-increasing varieties, their associated inputs and of irrigation takes place as foreseen. These overall magnitudes and projections, of course, ignore the very serious problems of distribution and malnutrition in both countries. Over a quarter of India's population is undernourished and estimates of the proportion below the poverty line vary from two-fifths to two-thirds. The latest nutrition survey for Bangladesh shows that only 3.5 per cent of the rural population is adequately fed, and over 25 per cent suffer from severe malnutrition.

38. The decade of the 1950s saw in India an accelerated rate of agricultural growth of 2.8 per cent per year due to increased land under cultivation, intensification of labour use, and increased irrigation. Although most agriculture used traditional technologies, there were areas such as Ludhiana in the Punjab and West Godavari in Andhra where extensive use had been made for some time of fertilizer, threshers, seed drills, tractors and irrigation pumps. The Green Revolution subsequently made its greatest impact in these areas of relative advance. The Punjab, with a similar population, has achieved faster agricultural growth rates than Taiwan. Meanwhile, other States of India such as Bihar, West Bengal and Madhya Pradesh have had some of the lowest growth rates in the Third World.

39. The Grow More Food Campaign of 1943-50 was the first planned attempt to increase food production through an extension of the cultivated area, replacement of cash crops with food crops and improved farming methods through improved seeds, manure and chemical fertilizers, and minor irrigation works, particularly tube-wells. Although it achieved much of its planned output target, it only covered 4 per cent of the cultivated area and was criticized for concentrating on the larger farmers in order to produce a surplus of cheap food for the towns. Community development was seen as the answer to these deficiencies by covering the countryside with development "blocks" of 100 villages each, every block development officer assisted by a group of specialists in various aspects of village life. At the lowest level, the Village Level Worker, responsible for six to seven villages, was to motivate the population into construction activities for communal benefit, encourage improved farming practices and promote co-operatives. Associated with this was the establishment of local self-government through village "panchayats" to foment village democracy. Apart from the administrative problems of adequate staffing and training for such an extensive programme and the complexity of dealing with multiple objectives with scant financial resources, disillusionment with the Community Development Programme resulted mainly from its obvious failure to arouse "community spirit" in a village context of acute social and economic stratification and conflicting interests. "Panchayati Raj" as an exercise in participatory democracy was seen to be useless for the same reason.

40. A new agricultural strategy was introduced in 1960 to concentrate government efforts in modernizing agriculture in the areas of highest potential. The Intensive Agricultural District Programme (IADP) was started in six districts

in 1960, rising to 18 districts (out of a total of 300) by 1967-68: the idea was to concentrate staff and technical assistance in districts favoured by an assured water supply, developed institutions and relative freedom from natural disasters, as well as higher levels of fertilizer and tractor use. Experience with the IADP strategy was mixed. Compared with non-IADP districts, yields were even lower in some cases, particularly for rice, while the wheat record was better. The programme made little dent on the country's overall agricultural situation and was criticized for its high expenditures on bureaucracy and administration rather than on encouraging technical changes. Severe drought also affected India throughout the 1960s until 1968.

41. The major effort to introduce the new High Yielding Varieties (HYVs) coincided with the formulation of the Fourth Five Year Plan agricultural strategy in 1965. The intention was to select areas with "assured rainfall and irrigation for concentrated application of a package of inputs based on improved varieties of seed responsive to heavy doses of fertilizers, and on other modern inputs". 12/ (Gov. of India 1975) Wheat seeds from CIMMYT in Mexico, rice varieties from IRRI in the Philippines, and hybrid varieties of maize, millet and sorghum developed earlier in India with the help of the Rockefeller Foundation were all introduced after local trials in 1965-1966. Following the production of certified seeds and their delivery to cultivators, large areas of the country underwent a spectacular average increase in the first five years: from 1.9 million hectares in 1966-1967 to 15 million hectares in 1970-71. By 1971-72, the new wheat varieties covered 39 per cent of the total wheat-growing area and new rice varieties 19 per cent, increasing wheat production from 10.4 to 23.8 million tons, and rice production from 32.6 to 42.2 million tons, producing a record combined foodgrain output of 108 million tons in 1971. Since then the spread in acreage has slowed down considerably, the better endowed and irrigated regions having been covered, and a major breakthrough in the research for rice varieties adapted to less favourable conditions is still awaited. 13/

42. Among the unsettling consequences of the Green Revolution in India have been widening income disparities, limited participation of small farmers, growing land concentration and labour-displacing mechanization in some areas, and the paradox of large foodgrain surpluses in a context of widespread deficiency of calorie consumption levels.

43. To address such problems, the government sponsored two agencies with the express purpose of providing institutional support to the small farmers and landless labourers: the Small Farmers Development Agency (SFDA) and the Marginal Farmers and Landless Labourers (MFAL). The SFDA's main tasks were to identify constraints facing the small farmers, provide small irrigation schemes, introduce new seeds, inputs and livestock farming, and encourage a flow of credit at a subsidized rate (usually 25 per cent) by providing financial and supervisory support to small farmers and covering part of the risks of non-payment. The MFAL Agency was organized at the sub-divisional or block level to help "marginal" farmers with less than one hectare of land (whereas small farmers are usually classed as having 1-3 hectares each) as well as landless labourers through rural works programmes, homestead land and assistance for house construction. Marginal farmers were to be encouraged in dairy-farming, small livestock rearing, fisheries,

and improved agricultural practices. The MFAL Agency was to act through existing institutions such as the commercial banks and co-operatives.

44. According to recent evaluation undertaken of both Agencies, only about 2.3 million families have been affected by the two schemes in 46 out of India's 300-odd districts. Problems arise from the small, part-time nature of the staff, lack of co-ordination among government departments, and from working through traditional banking and co-operative institutions with conservative credit policies, dominated by the richer sections of the population. The richer farmers have circumvented the eligibility criteria by falsifying land records, while the definition of small farmers in terms of land-ownership has excluded tenants in some places and allowed cultivators with large operating units to participate in others. The experiences of both MFAL and SFDA show that it is not enough to set up an organization catering for a target group without first undertaking thorough changes in the social and political environment. As long as village society remains stratified, and dominated by the richer component, it is difficult to implement measures which solely cater to the needs of the underprivileged.

45. Also to help the rural poor, India has legislated minimum wages and carried out rural works programmes. In the presence of surplus labour, however, it has been difficult to implement minimum wage provisions; village surveys in the late 1950s and 1960s indicated that agricultural labourers worked between 122 to 178 days per year. ^{14/} (Das Gupta) Also, rural works have been criticized for being of poor quality, corrupt in the use of funds and further enriching the rural oligarchy and bureaucracy^{15/} (Raj Krishna, 1958). While they have provided temporary relief to large numbers of agricultural labourers, their impact in terms of new production assets created has been disappointing on the whole.

46. In spite of considerable investment in irrigation, vulnerability of agriculture to the vagaries of the weather has not significantly declined and the need for further irrigation remains critical. The growth in the supply of fertilizers is equally critical for raising productivity. More research is needed to produce pest-resistant rice varieties, able to cope with rapidly-rising water levels from monsoon rains and having desirable culinary characteristics. Unlike in the case of wheat, this research has to be undertaken for a wide variety of growing conditions throughout the country. More research is also needed regarding the sorghum and millet consumed by the poor, as well as the oil seeds and pulses that are in increasingly short supply. The costs of new technologies have to be brought down to a level that small farmers can bear, relying more on indigenous inputs and recyclable resources.

47. The government has opted for a strategy of "betting on the best", concentrating on the more favoured areas and on the larger, progressive farmers. The poor were to be helped through relief programmes, fiscal transfers and target group agencies. In the short-run, the strategy paid off in increasing total

output and substituting for imports. Its deficiencies, however, became evident in the slower spread of new varieties as favourable opportunities declined; in growing regional and local income disparities, and by the creation of apparent surpluses resulting from shrinkage in market demand. It has not even been a case of resources being drained out of agriculture. Rather since independence India has "continually transferred resources into a generally technologically stagnant agricultural sector. Government expenditures on agriculture have consistently exceeded tax revenues from agriculture. Relative prices have, with a few brief exceptions, moved in favour of the sector; credit institutions have transferred funds into it; and the nature of industrial growth has encouraged little net investment by rural people, while urban workers have made net remittances both to the agricultural sector". Unfortunately, higher food prices and most government investments have helped not the rural community as a whole, only the rich farmers with their marketed surplus. While the amount of work has increased in terms of labour days, it is being performed by a smaller number of hired people, or by casual and itinerant wage labour. While money wages have risen, the real incomes of agricultural labourers have fallen in many areas.

48. In his "New Economies of Growth" ^{16/} Mellor advocates an employment-oriented growth strategy for India (and other Third World countries in a similar position) which stresses technological innovation in agriculture and a decentralized, labour-intensive form of industrial growth that would derive much of its impetus from the growth of rural incomes. Agriculture, and food production in particular, would play a pivotal role as the main source of wage-goods, as well as the principal means of direct employment. Increased rural incomes, based on cost-reducing technological innovation in agriculture, would stimulate demand for additional food production and for consumer goods that could be produced through labour-intensive techniques. Increased incomes would also create savings for investment by rural families in local, small-scale industries to meet their own demands. While the immediate demand would be for fertilizer and pesticides that require large-scale capital and import-intensive industries, many of the mechanical items required, such as engines and pumps for lifting water, mechanical threshers, and a range of agricultural implements, can induce investments in small-scale and labour-intensive rural enterprises, with strong multiplier effects in the rural economy. The process would encourage investments in rural infrastructure and electrification which in turn would make rural industry more profitable.

49. Some 60-80 per cent of the increase in rural incomes would be spent on consumer goods, but the pattern of demand would of course vary according to the distribution of those incomes among low and high-income rural families. Marginal farmers and landless labourers are estimated to spend about 60 per cent of extra income on foodgrains alone, with another 15 per cent on other agricultural commodities -- mainly oils, dairy products and vegetables -- the production of

which would have a favourable employment effect as well. A rise in the incomes of farmers in the 2-5 hectare range would induce a much bigger rise in the production of non-food grain consumer goods, such as dairy products, textiles, consumer durables, services and education, many of which currently are provided by the cities. Under existing social structures, HYV technologies have provided most of the extra income to the larger farmer group with a consequent dampening of effective foodgrain demand. The unimodal growth pattern of Taiwan, by contrast, has promoted the kind of employment-oriented growth process advocated.

50. A major re-distribution of assets would achieve a much wider participation in the growth process. It would break the unequal structure of power in the villages and provide the basis for the development of cooperative activities in farming, land preparation, soil conservation, etc. It should also make it much easier for agriculture to make its contribution to the national economy through taxes.

Structural Reform Policies

51. Land reform is central to rural development. In most rural areas of the Third World poverty is intimately related to the degree to which land is concentrated. Landownership is largely synonymous with social prestige and political and economic power. Reduced inequality of landownership through re-distribution in favour of landless workers, tenants and marginal farmers, contributes directly to the alleviation of the most acute forms of deprivation of the rural majority. Moreover, re-distribution of land through the creation of homogeneous small-holdings is likely to increase yield and value added per hectare as well as employment. As the ILO document on Poverty and Landlessness in Rural Asia points out "a reduction in equality brought through a re-distribution of landed property and supported by measures such as the provision of credit and marketing facilities is likely to raise total production and is certain to raise the incomes of the poor. Rural development cannot be said to have begun without land reform".

52. The radical land reform that has taken place in countries and regimes as ideologically divergent as Peoples' Republic of China, Taiwan and South Korea bear out this contention. In Taiwan and South Korea re-distribution, imposed from above, eliminated the wide disparities in the countryside between those who controlled assets and inputs and those who did not. The beneficiaries were organized into farmers associations or cooperatives for the channelling of inputs and marketing of output.

53. Chinese land reform took place after a nationwide peasant revolution, and the interests of the national leadership were therefore the same as those of the peasant majority. Land reform was the first step in the re-distribution of political and social power in the villages. In carrying it out, the national leadership did not merely rely on administrative decrees and bestowing land on the peasants. It encouraged the peasants to organize themselves to take the land and re-distribute it. The participation of the peasantry was essential to ensure that substantial distribution occurred and to establish land reform as basic to further progress.

54. Out of the local organizations of peasants emerged a vigorous leadership cadre committed to a new way of life. "For a generation of youth in North Shenshi, participation in land revolution was the decisive act in breaking the ties that tied them to a decadent and oppressive order and in defining their involvement and leadership in the new society." 17/ Land reform in China also liberated the Chinese women who received an equal share in the re-distributed land. They organized themselves into women's associations, joined the peasants' associations and stood up to the old landlords in the village meetings. Finally, land reform raised the consumption level of most of the peasants while also increasing rural savings for local and national investment.

55. Contrasted to such thorough-going re-distribution of land and assets are examples of legislative land reform in India and limited land reform in Egypt, Philippines, Thailand and Pakistan. Land reform in India attempted to bypass the local power structure. Implementation was piecemeal and bureaucratic, without close links being established between the administration and the peasantry. Many of the rural elite had the wit and resources to get around the laws with their many loopholes. The principle that ownership should be vested only in those who work the land was not maintained and control remained largely in the hands of rent receivers and other village oligarchs rather than passing to tenants, crop-sharers and labourers.

56. Agrarian reform in Egypt succeeded in re-distributing 13 per cent of the cultivated area to about 9 per cent of the rural population. It eliminated the very large properties, consolidated the position of the rich and middle peasants, and slightly improved the lot of small peasants for a period of time. The landless peasants representing half the rural population, remained outside the reform. The marginalism of small peasants and continued concentration of land in the hands of medium and large landowners, together with a high rate of population growth, have tended to cancel out the benefits of this marginal land re-distribution programme. 18/

57. An analysis of land reforms in Pakistan, Philippines, and Thailand also concludes that a programme which in fact favours the better-off sections of the rural population at the expense of the marginal farmers, share-croppers and landless labourers may be an important contributing factor to rural poverty. 19/ The presidential decree of 1972 in the Philippines, for example, excludes the countries largest landowners, and only 15 per cent of the cropped area in rice and corn (above the seven hectare ceiling) was subject to re-distribution. By early 1974, however, only 2 per cent of the cropped area had actually been transferred to tenants and share-croppers, only 12.3 per cent of all tenants had received rights to the purchase of land. The tenants in most cases have not the money to pay for the land along with annual interest plus taxes and dues to government-sponsored cooperatives needed in order to be eligible for credit and marketing facilities. With the landowner no longer interested in supplying credit, the tenant has to borrow from cooperatives and privately-owned banks which, with

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a shortage of credit allocation to rural areas, appear to give preferential treatment to better-off tenants and larger landowners. Furthermore, the absence of close links between the administration and the peasantry has resulted in "physical acts of dispossession, like bulldozing of farms, demolition and/or burning of houses, manhandling, intimidation, etc." by the landlords. 20/

58. In Thailand, recent land reform laws established an 18 hectare ceiling. However, the exceptions in the law to the ceiling, i.e. for personal cultivation, modern farming methods, and projects to assist increase in production, can easily be taken advantage of and thus nullify meaningful re-distribution.

59. Similarly, under the 1959 land reform in Pakistan, the re-distribution of expropriated land mainly helped the middle-size peasants, 88 per cent of the land going to them and only 12 per cent going to those cultivating two hectares or less. Those already possessing or cultivating more than ten hectares of land received more than one-third of the re-distributed land. The 1972 reform resulted in re-distribution of land to 40,194 small farmers and tenants up to March 1974, that is, to 1.6 per cent of the 2.5 million small farmers and tenants with holdings of less than two hectares of land.

60. Increases in rural poverty in these countries can partly be explained by the failure of agrarian reform to alter fundamentally the unequal distribution of land, income and power. Similar perpetuation of inequality can also be seen in land-rich countries which carry out land settlement operations. The pattern of land-ownership remains unchanged. As the ILO document on landlessness and poverty in rural Asia points out, a severe limitation of settlement policy has been its lack of focus on specific groups. The situation of the marginal paddy-farmers outside the 'rice-bowl' areas was overlooked as was that of the rubber smallholders. Settlers were selected according to principles of equity, but the enormous imbalance between the number eligible and the number who could be accommodated was overlooked. Unrealistically high target farm sizes and capital-intensive land development schemes left out many of the rural poor from access to land and to employment. Further, the original inequalities in income distribution on the old land remained unchanged. Thus, except in the cases of thorough-going reforms in Japan, China, Taiwan and Korea, land reform measures have generally strengthened the rights of a minority of middle-level tenants and owner-operators and increased productivity in the short run as a result of technological inputs. In the long run, however, the emergence of a new class of share-croppers, sub-tenants and seasonal workers nullified the little that had been achieved.

61. The problem of landless labourers has almost entirely been neglected, except in enacting minimum wage laws which on the whole cannot be enforced. Given the prevailing man-land ratio in many Asian countries, it is essential that reform programmes entail fuller utilization, on-farm or off-farm, of the growing mass of landless labourers. If reform is taken as a first step in co-operative farming,

whether in the private ownership context as in Japan, Taiwan and South Korea or in the communal context as in China and the kibbutz of Israel, landless labourers who do not benefit directly by acquiring land are absorbed in other ways. Cooperatives or associations undertake a package of activities aimed at the fuller utilization of the available labour force and infrastructure of buildings, roads, irrigation channels, extension and credit services, community education and health services etc. Again, structural solutions could combine with diversification of the rural economy, including communal forestry, fishery and livestock activities, a public works programme for strengthening the rural infrastructure, as well as sideline occupations like handicrafts and local resource-based industries.

62. Further, even if the amount of land that can be re-distributed is limited, making plots available for house and kitchen gardens can go a considerable way towards reducing the dependent status of landless labourers. 21/ Similarly, as the Food Crisis Workshop in Manila (7-9 February, 1977) pointed out, "The greatest insecurity in most Asian villages is ownership of house-lots where rural families live. For example, in the Philippines less than one half of all families own the lots on which their houses stand and, therefore, are discouraged from making even simple improvements like installing a water-sealed toilet. Ownership of house-lots of 600 to 1000 square meters gives a family security of belonging in the community. It also gives the family title to a piece of real estate with improvements that can be mortgaged, should a loan be needed. For Asian governments the opportunity to carry through a land reform assuring every family of the ownership of a house-lot affords the most dramatic, widespread and cheapest means to rapidly achieving rural well-being and greater prosperity. Further, plots large enough to support a kitchen garden, a cow or a buffalo, could be of considerable nutritional value to the family. In People's Republic of China, the private plots provide the vegetables and protein needs of the rural families (i.e. pigs, poultry and fish) and complement the basic foodstuffs provided by the collective." 22/

63. In any agrarian reform programme participatory rural organizations are needed, not merely as a receiving structure for inputs, but also for mobilizing local resources and seeking outside assistance. Examples in Asia include China, Israel, Korea, Japan, Taiwan and Yugoslavia, where effective and serious land reform involved not just breaking up some big estates but systematically getting land to small farmers and landless labourers within some framework of rural local organization. 23/

64. The individual smallholder, tenant or labourer, is relatively powerless without an organization which enables him access to essential services and means to express his needs. From the point of view of the State, local organizations can serve as a channel of distribution and communication, providing feedback to governmentally initiated activities and bringing specific local knowledge to bear on problems. More generally, such organizations should provide the context for the release of the virtually untapped creative energies of the peasantry and invest them with a collective influence over their own destiny.

65. A characteristic of countries with successful rural development experience is the multi-level linkage of local community organizations. At the base is an organization small enough for shared identity and common interest. For example, in China the production team knows who contributes well and rewards him with local esteem. The production teams in turn are grouped into production brigades which can mobilize the labour force for infrastructural work such as irrigation canals, roads and storage. At the next higher level the commune co-ordinates and provides the administrative, health, education, and industrial infrastructure: the Japanese hamlet (murra) with an administrative village (borradin), the Taiwanese township with the village farmers' associations, and irrigation associations cutting across a number of villages, the Yugoslav commune with constituent neighbourhood associations correspond to such multi-level local organizations.

66. As long as the developmental goals of the State and the rural activities are compatible, central and local governance are interdependent and mutually supportive. The countries that are improving the conditions of the disadvantaged classes are those with a substantial decentralization of responsibility for development at the level of the local community. No local community should be able to challenge with impunity the broad policy decisions of the top, but within limits a great deal of the problem-solving and the innovating necessary to development should occur at the local level. Should crop rotations be changed? How can farm productivity be increased? What irrigation technology should be used?

67. Development requires community participation and cooperation and pressure for everyone involved to live up to group expectations. However, "local engines cannot run without fuel". Without seeds and fertilizers, the farms cannot do what they are expected to do; without contraceptive materials, the birth rate will be less well-controlled. Also, without a committed and responsive local leadership, local initiatives may go in any number of directions.

68. Local leadership is the key intermediary between central guidance and local initiative. In China 20 million local cadres are the communications link with top leadership as well as horizontally between village, neighbourhood and commune. Supervised from the top and understanding the "big picture", they are controlled from below by working with the peasants and workers in the farm or workshop. They are responsible, not only for special problems, but also for the whole of development in the locality. Unlike most developing countries, the technical specialist does not come from the centre or the region to help the farmers, to persuade them, or to teach them. Rather, the technical specialists work with the peasants and workers to build up local capability. Similarly, bureaucrats

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and technicians from higher organs of government are sent down to the communes to work and live with the peasants, thereby relating their development assignments to local perceptions.

69. In most developing countries, on the other hand, **local organizations** are established by departments of the central government to carry out their programmes. Such organizations are regarded as extensions of the government bureaucracy and are needed for delivery of outside resources rather than for mobilization of local resources and self-management. In a stratified society, such organizations have often been taken over by the more prosperous elements and "common interests" become, in fact, the interests of an activist minority. When imposed from above for better management or the introduction of a package of inputs local organizations are necessarily run not by face-to-face relationships but by representative committees, and the representative leadership will almost certainly reflect the interests of the dominant group. Even in Bangladesh, where the majority of the peasants have two acres and less, "combination of the rich, middle and small and marginal farmers together resulted in co-operatives being dominated by vested interests". 24/

70. In Egypt one of the main objectives of the supervised co-operatives after the 1952 land reform was to increase agricultural productivity through the supply of improved inputs and credit. By the 1960s they had become the sole supplier of inputs.

"Medium and large landowners found in the credit facilities advanced by the co-operatives a cheap source of finance not only for their agricultural operations, but to enhance their wealth by buying more land, machinery, livestock and sometimes to finance some commercial business. When the government tried to check this trend by imposing a rate of interest of a 4 per cent on loans advanced to holders of ten feddans and more, many large landowners reacted by dividing their holdings into plots of less than ten feddans to benefit from the exemption from interest. Unequal distribution of credit was not the only means by which large landowners appropriated the greater part of co-operative finance. A common practice has been to raise substantial amounts of capital through continuous accumulation of co-operative debts. In fact, there were cases where some large landowners assumed the role of the private moneylender, using the credit they obtained from the co-operatives.

Reference must finally be made to the fact that many privileges were enjoyed exclusively by rich farmers by virtue of certain provisions of the agrarian reform laws. For instance, in the system of livestock insurance, only the owner of at least three heads of

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cattle is formally eligible to insure his livestock, and subsequently to obtain a ration of 150 kg. of fodder at the subsidized price fixed by the State. The poor peasant who cannot insure his livestock is deprived of such privileges; in most cases he has to buy fodder on the black market. Moreover, only owners of more than 15 aeddans were eligible to buy selected seeds at subsidized prices. It is not, therefore, difficult to understand the often-expressed view among small and poorer peasants that co-operatives have done very little to relieve their monumental burden of indebtedness."

71. In most countries, traditional local government institutions, a legacy from the past, do not represent the majority of the rural people, the illiterate and the semi-literate peasants, the landless, the women and youth. Local power-holders manipulate local voting too easily. In an agrarian oligarchy, giving small men greater influence by "One Man One Vote" has not produced equity. Rural elites, normally intimately linked with the national ruling class, are not likely to give up their traditional privileges, and quite naturally attempt to distort programmes designed to benefit the small peasants or tenant-farmers.

72. To offset their lingering impotence in local government, the poor can be organized economically (as the case of the Anand milk producer's co-operative in India) as small-farmers' co-operatives, landless workers' unions, women's associations, rural youth brigades, or through organizations of the politically disadvantaged for direct political action.

73. In recent years organizations of the rural poor have been increasing in Asia and Africa. Among those in South Asia are the Janavasas (People's Settlements) in Sri Lanka where groups of landless youth have been settled in experimental collective farms; the Bhoomi Sena (Land Army) in India, an organization of bonded labour in Maharashtra for asserting legal rights to land, against bondage and for a minimum wage; the Total Village Development Programme under the Comilla Academy in Bangladesh in which youth clubs have been organized in the villages to act as catalysts to organize the landless poor; the Peasant Asiayone in Burma, a nationwide organization intended to promote collective participation of the peasantry in Burmese socialist development.

74. In Africa, the Ujama experiment in Tanzania remains to be studied from the point of view of peasant participation. The programme of socialist villages in Algeria seems to have reached a stage where important lessons may be learned. Peasant movements initiated by students are reportedly advancing in Ethiopia. In Zaire, the Progres Populaire in the Ideofa region reflects an effort at mobilizing the spontaneous initiatives of the peasantry. In Kenya, the Harambee ("let's pull together") self-help movement focusses on social development-oriented projects as contrasted to the economic growth-oriented projects of the governments development programmes, perhaps illustrating the dichotomy between the felt needs of the local communities and bureaucratic perceptions about what should be done for them.

75. The conditions of work and life of the rural poor are diverse and complex, and no single type of organization may be prescribed out of context. Where distribution of land ownership is sharply polarized, the landless or poor peasant

is often not a wage-worker to a single landowner, but a sharecropper, casual labourer to many employers including the government, "guest-labourer" to rich households where he eats as well as earns a cash wage, or bonded often with his family to a landlord-money lender. The peasant in many countries often works for others to supplement his income, or entirely for others while leasing out his own land for lack of working capital.

76. In each specific context the rural poor find it in their mutual interest to form organizations for collective action. The choice of allies to whom they may want even to extend membership in their organization, and of priorities for collective action, must be deliberated by the poor themselves within the specific context that prevails. The task of promoting participatory organizations of the rural poor should therefore be seen not as that of initiating any pre-determined form of organization but of mobilizing the rural poor for specific actions generated by their own deliberations, which will in turn produce appropriate organizations. Secondly, the organization will unfold in its nature and adapt itself to new situations, as the social dialectics resulting from organized action unfold and the social relations in production change. 25/

77. It is also important to recognize that special interest groups of the poor cannot be effective if they organize simply at the level of the village or peasant community. As indicated earlier, their dependence on the locally affluent and land-owning groups makes them vulnerable to retaliation. Affluent landowners are typically organized in farmers' associations or other groups with national ties, constituting powerful lobbies at the State level. Unless the disadvantaged can increase their political and economic strength, there can be no doubt about the outcome of a highly unequal contest.

78. The ACC Task Force on Rural Development stated in Washington D.C. (8-11 March, 1976) that "the mobilization of the energies and resources of the rural poor themselves emerges as the key factor in increasing both productivity and their self-reliance" and that "such mobilization will require the formation, adaptation and strengthening of community structure, including organizations of the rural poor".

79. Countries are exploring different approaches to co-ordination of developmental activities at regional and district levels. Generally, with decentralization of administration, the local agents responsible for horizontally co-ordinating programmes and projects at the regional and district levels are those of the Ministry of Interior and Local Government or the Ministry of General Administration. Their basic role continues to be revenue collection and maintenance of law and order, to which a new role is added, that of co-ordinating activities planned and implemented by the development ministries. This dual role results in a bureaucratic style of work which does not understand and work with the local community and departmental agents to obtain positive support for projects and programmes.

80. District administrators and technical experts are generally alienated from the peasantry, often having a contempt for them. Professionals do not enjoy discussions with semi-literate or illiterate peasants. This is illustrated in Tschanner's study of the rural water-supply programmes in Tanzania: "The staff of the water ministry tends to have a technocratic and bureaucratic attitude putting primary emphasis on the establishment of technically sound structures, rather than close co-operation with the peasants. Projects are designed, constructed and maintained by the engineers of the water department. Self-help where it has taken place in the past, was nearly always limited to a contribution of free labour under the supervision of the water department staff." 26/

81. The involvement of the people is often viewed by experts as politics unnecessarily interfering with development work. They see development problems as largely administrative rather than involving the people. Decision-making is typically a movement of files and orders through the hierarchy of officials. The bureaucratic method of decision-making finds its complement in the technocratic method of implementation. Problems are handled by expert advice, efficient organization and planning; people are just another statistic in the plan who should implement instructions. This bureaucratic-technocratic style is partly responsible for the continued remoteness of the rural poor from policy-decisions and their consequent inertia and passive dependence.

82. The administration of "rural development", which bureaucratically appears to mean development of a geographical area rather than the people therein, has recently taken on a new dimension which is reflected in Integrated Rural Development and Area Development programmes, and in another variant of them, the Minimum Package Programmes. The assumption in such cases is that rural development cannot be successfully implemented through the traditional ministries or lines of authority. This requires, at the national level, the formation of a rural development ministry or a rural development unit in the office of the President or Prime Minister. The rural development ministry invariably takes on some of the functions of other ministries, and there is thus conflict with the established bureaucracy. For example, a rural development ministry engaged in building feeder roads (through a public work programme) comes into conflict with the Department of Highways, even if the highways department has neglected feeder roads in the past, or a rural development ministry which assists in organizing farmers to obtain irrigation facilities encounters the opposition of the Water Ministry.

83. Rural development units inside the office of the President or Prime Minister can operate successfully at the national level so long as there is political support. Again, however, these units represent an intrusion on ministerial authority, and their influence is often quite limited outside of the capital city.

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84. A programme based on a particular area's production potential leads to 'betting on the best and the few at the cost of the many'. Use of substantial planning and administrative resources in a given area may deprive other regions of a country. Further, area projects are normally implemented by a special authority or by a project director working in collaboration with a committee of officials from the different departments or agencies. As the rural development policy paper of the World Bank points out: "The comparative affluence in terms of management and finance enjoyed under many of these projects during the implementation period often does not survive the transfer of functions to the local administration system." A successful design for comprehensive development still remains elusive. Analyzing the myriad inter-relations of a local economy and integrating macro, micro and inter-sectoral functions can indeed be valuable for a sophisticated project or programme design. Inasmuch as such rationally created packages are imposed from above, they may inhibit the intended beneficiaries, making them more confused by the complexities introduced and thereby more dependent. 27/

85. "The success of many of the rural development pilot projects has been due to the relative intensity of human resources devoted to organization, management and technical assistance. When an attempt was made to generalize a pilot project on a national or regional scale, the intensity of human resource input could not be maintained." 28/

86. The absence of well-defined rural or community development technologies around which professional capacity or resources can be organized limits the effectiveness of bureaucratically-implemented integrated rural development efforts. Moreover, given the structural inequalities, it is difficult to design a rural development package of activities that can command a broad basis of community support.

87. The efficient delivery of services to rural communities must depend on effective organization at the community level in order to have meaningful interaction with the delivery agencies in the establishment of priorities. Moreover, communities must be able to mobilize political resources to be able to provide incentives for efficient bureaucratic performance. However, the poor majority in the rural communities often lack this capacity. Therefore, rural development is largely dependent upon developing the limited economic and political resources available to the disadvantaged in rural communities: organizing efforts which expand the resources available to the local majority and contribute to the efficiency of production and consumption activities in rural areas; organizing schooling in such a way that it contributes to the efficiency of the rural people as producers and consumers; training poorly educated village nominees in health and extension skills that enable them to deliver, disseminate and adapt productive technologies and services to the rural areas; locating these services in the communities where they can be simultaneously available without being necessarily administratively segregated.

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88. Village teachers, primary health assistants or agricultural extension agents, whose work keeps them in a 'most daily touch with the rural poor, have the potential to improve the quality of their lives, as long as they are responsible to the people's organizations rather than to a vertical hierarchical structure. "The present crisis in rural development, including growing inequality, deepening absolute poverty and even starvation, are not merely an unfortunate episode but an inevitable consequence of past tendencies to exclude the rural poor from development planning and processes, to avoid institutional reform and to concentrate narrowly on increasing production. The present tendency to focus discussion on so-called target groups is a partial corrective to past tendencies. It is to be warmly welcomed in that it emphasizes that rural development should be primarily for the poor. It is incomplete in that it fails to emphasize that development should increasingly be by the poor." 29/

The Impact of Alternative Strategies: Cross-Country Experience

89. The Institute of Development Studies of the University of Sussex and the World Bank produced a study in 1974 entitled "Redistribution with Growth", which reflected the growing international concern with issues of poverty and distribution. In a comparative analysis of data for sixty-six countries, mostly in the Third World but including some rich countries, the study examined the extent of income inequality as determined by the shares of the lowest 40 per cent and top 20 per cent of households. The share of the lowest 40 per cent was less than 12 per cent of the total in countries of high inequality, between 12 and 17 per cent in the countries of moderate inequality, and above 17 per cent for countries of low inequality (accounting for 60 per cent of the entire population of the Third World, excluding China). Most of the Third World sample showed a higher degree of inequality than the industrialized countries. About half belonged to the 'high inequality' range and a third in the 'moderate inequality' group.

90. In 17 or 40 per cent of the 43 Third World countries that had per capita incomes below \$750, the top 20 per cent of households had more than 60 per cent of the total income. Levels of absolute poverty (defined as per capita incomes of less than \$50 or \$75) were found mostly in countries with low income generally, particularly in South Asia, rather than in those with the most skewed distributions of income. However, many countries with relatively high average per capita incomes (over \$250 in 1969) had sizeable proportions (above 20 per cent) of their total populations in absolute poverty conditions (under \$75), particularly in South America.

91. The study did not confirm any strong relationship between the rate of growth of GNP and changes in relative inequality; countries with the same rate of growth had very different experiences with the changing share of the lowest 40 per cent. In other words, high rates of economic growth do not necessarily generate greater inequality. What is important is the nature of the growth process in each case, and the factors that determine the pattern of concentration.

92. To understand the processes of income generation of the poor, including factors that constrain the process, one has to look at the characteristics of the poor, their distribution, occupations, education levels, ownership of productive assets and access to key production inputs. Since more than 70 per cent of the poor live in rural areas and the vast majority of them are engaged in agriculture, it should be presumed that strategies designed to increase the incomes of the poor should focus on the agricultural sector. However, as the above-noted study points out, "a mere shift in sectoral emphasis towards promoting agriculture and allocating resources to rural development is not enough.... In most countries, the rural sector is more equal than the urban but the degree of inequality in the rural sector is nevertheless considerable". Even in rural areas, the upper 20 per cent appropriates about 50 per cent of total income.

93. In terms of employment status, the poorest groups are the 'self-employed', usually small owner-cultivators and tenant farmers, as well as wage-labourers. However, expanding employment would not be enough to raise the incomes of the poor. Raising production levels in existing occupations is probably equally important.

94. Skewed distribution of land has already been noted to be a prime determinant of income inequality. Other factors include higher population growth among the poor, dilution of ownership of capital through fragmentation of land, and migration to the cities. Low savings rates reduce the capacity to generate capital internally, and access to human capital - schooling and benefits from health and nutrition - is equally limited. All these factors and their interactions have to be addressed if real rural development is to occur.

95. Another set of studies focussed on the experience of countries that have successfully combined economic growth with increases in the relative incomes of the poor. ^{30/} A statistical analysis of 43 Third World countries for the period 1957-1968 determined the relative importance of 35 independent variables in explaining inter-country differences in patterns of income distribution. The six most important variables were found to be the rate of improvement in human resources, direct government economic activity, socio-economic dualism, potential for economic development, per capita GNP, and the strength of the labour movement.

96. The poor appear to be penalized by economic development in the early stages. As the small modern sector expands in a basically subsistence agrarian society, the income shares of both the lowest 60 per cent as well as of the middle 20 per cent decline significantly while the top 5 per cent appropriates the benefits. "In these countries, the path towards sustained economic growth is eventually blocked unless either the country is sufficiently large or redistributive policies are sufficiently important to generate an internal market for growth. The poorest segments of the population typically benefit from economic growth only

where widespread efforts are made to improve the human resource base." 31/ Except when countries reach the highest GNP levels prevalent in the Third World, domestic policy has to be specifically aimed at redirecting the benefits of growth for the poor to be able to share. Evidence shows that neither greater political participation nor greater public ownership of the means of production appears to be effective in re-distributing income to the poor.

97. To initiate equitable growth requires re-distribution of assets and of opportunities for access to asset accumulation, followed by policies that favour growth and allocate resources efficiently. The major recommendation of development strategies indicated by the Adelman-Morris findings is to have a "labour-and-skill-intensive" growth strategy based on the widespread application of educational skills, a widening of the economic base to reduce dualism, and a large government role in industrial production. Most of the conventional economic and social variables normally stressed by planners, including increase in agricultural productivity, changes in the degree of industrialization, rate of growth of population, and improvements in tax systems and financial institutions are found to have little influence on income distribution.

98. In an analysis of the impact of economic change on the structure and extent of poverty in 24 countries in the nineteenth century, the same authors stressed the effects of industrialization and commercialization. One of the major hypotheses that emerged was that rapid commercialization and industrialization systematically depressed the living standards of the poorest sections of the population. The replacement of one set of economic activities by another through technological change or through monetization, and the introduction of new economic activities, had the effect of reducing the incomes and earnings of those engaged in outmoded activities (e.g., rural handicrafts). Inherited constraints such as the comparative scarcity of agricultural resources and certain types of land-ownership and cultivation (either large-scale cultivation with bonded labour and small-scale cultivation with tenants, or densely-populated small-scale and fragmented peasant proprietorship) have contributed much to widespread poverty in basically agrarian economies.

99. "In all countries, the commercialization of agriculture had reduced possibilities for small agriculturalists to obtain a livelihood; enclosure had taken away the use of common lands on which they depended for their livelihood; rising land values and rents had squeezed small tenants; and the shift to production for the market had led to indebtedness and dispossession of small-holders without the resources to survive market fluctuations. The people engaged in the increasingly marginal activities had joined the permanent wage-earning class or the permanently unemployed only when faced with eviction or incomes below an irreducible minimum."

100. There was no automatic "trickle-down" effect for the poorest segments of the benefits of industrialization and for new economic activities to adequately re-absorb the population displaced by structural change. The faster the change, the worse it was for the poorest groups. "The impact of economic change on poverty depends critically on the nature of the social structure and social responses to economic change. These include social constraints on population growth, the response of fertility and migration rates to changing economic opportunities, legal and customary barriers to the sub-division of land, arrangements for land tenure and holding, and the strength of extended family protection of the unemployed and underemployed." 32/

101. In the economy-wide planning model of South Korea, focussing on the distribution of income, the potential impact of standard economic policy instruments and programmes intended to improve the relative and absolute incomes of the poor was explored. It was found that the size distribution of income was quite insensitive to a wide range of policy interventions, particularly if these are made individually and separately. On the other hand, the choice of economic policy has a major impact on the relative positions of different socio-economic groups (the functional distribution of income and factor shares), thereby allowing the government easily to favour or discriminate against particular groups.

102. The two most important policies to improve the size distribution of income appear to be to improve the agricultural terms of trade and to encourage rural-urban migration. Even trade policies affect income distribution through their impact on these two factors (i.e., import substitution usually results in a deterioration of the agricultural terms of trade). Production increases in agriculture similarly affect income distribution through their impact on the agricultural terms of trade. Direct transfers of income to the poor or indirect transfers through consumption subsidies, such as in food, housing and medical care, are effective instruments but are limited to the period of intervention. Rural public works and co-operatives are also beneficial among the single policy interventions, of which the most effective is land reform. However, a package of policies constituting a development strategy, including land reform, production, public works, co-operatives, social development, and price stabilization programmes, is very effective in alleviating poverty and improving income distribution.

103. Individual urban development programmes are much less effective, but a package combining public works in housing construction and transportation, and the promotion of labour-intensive export industries has positive effects, not so much by raising urban wages and employment, as by improving the agricultural terms of trade. The model indicates that most single-pronged anti-poverty programmes are inefficient and ephemeral. A balanced development strategy is required, changing the processes of growth: "As long as policy interventions were tacked onto a given strategy which remained unchanged, the distribution of income tended to revert to the pattern it would have had in the absence of the interventions.... However, a successful big push requires major government intervention and large implicit and explicit economic transfers. Therefore, the implementation of a successful anti-poverty programme would entail either a change in the ideology of the ruling classes towards explicit egalitarian concerns or a certain degree of centralization of authority in order to overcome resistance by the rich or, most likely, a combination of both. The problem would then remain of

reducing the power of the centralized authority once its basic job is done."

104. The five market economies identified as having successfully followed equitable growth strategies, viz., Israel, Japan, South Korea, Singapore and Taiwan, are recognized as special cases, thus weakening their usefulness as examples. However, the consistency of their experience is worth analysis. In each of them, human capital-intensive development strategies were adopted in which a similar sequence took place: "a re-distribution of assets, followed by a massive build-up of human capital, followed by an accelerated human-resource-intensive industrialization and growth strategy". 33/

105. In South Korea, for instance, great emphasis was placed on attaining universal primary education as well as improvements at secondary and higher levels: "the educational pyramid was broadened while its content became more oriented towards the acquisition of basic skills". The initial phase of building up education was characterized by slow growth and social unrest. Nevertheless, it provided the necessary base for the exceptionally high growth rate since the 1960s. This reorientation and broadening process was also a feature of the Japanese, Taiwanese and Israeli experience from the beginning. Human capital resources were built up initially in Singapore, Israel and Taiwan through the immigration of skilled and semi-skilled labour, and subsequently improved in all three countries.

106. This type of strategy goes through several phases: first re-distribution and mass education, a phase that lasted about ten years in the five market economies cited, and then growth in a labour-intensive pattern of industrialization. "There is evidence that the entire package -- resource re-distribution, massive education, and human-resource-oriented growth policies -- must be adopted in that sequence to achieve rapid success... In conclusion, our analyses lead inescapably to the position that a major reorientation of development strategies is required to achieve equity-oriented growth. Marginal adjustments to current strategies simply will not work." 34/

107. China's experience has been highlighted in the recent search for alternative strategies, particularly because of the country's growth performance and because of the many innovative approaches with people at the centre. Development as a trickle-down process was rejected; development was deemed worthwhile only if everyone rises together and no-one is left behind. People take preference over material output, and material incentives and the profit motive are de-emphasized in their influence on the allocation of resources. "The Maoists believe that economic development can best be promoted by breaking down specialization, by dismantling bureaucracies, and by undermining the other centralizing and divisive

tendencies that give rise to experts, technicians, authorities and bureaucrats remote from or manipulating the masses." 35/ If the goal of transforming people slows down economic growth, the sacrifice is considered worthwhile. The belief is that progress can only be made through struggle; "that selflessness and unity of purpose will release a huge reservoir of enthusiasm, energy and creativeness; that active participation by the 'masses' in decision-making will provide them with the knowledge to channel their energy most productively; and that the elimination of specialization will not only increase workers' and peasants' willingness to work hard for the various goals of society but also increase their ability to do this by adding to their knowledge and awareness of the world around them".

108. The goal of destroying specialization and bureaucratization, seen as the source of alienation, is specified in terms of eliminating the distinction between town and countryside, mental and manual labour, and workers and peasants. "Building on the best", the usual strategy found in most countries, is rejected in favour of strengthening the weak, not because of a lack of interest in efficiency but because of the belief that building up the capacity of the entire population "will eventually pay off not only in economic ways by enormously raising labour productivity, but more important, by creating a society of human beings who respond intelligently to the world around them, and who are happy... Experts are pushed aside in favour of decision-making by the 'masses'; new industries are established in rural areas; the educational system favours the disadvantages; expertise (and hence work proficiency in a narrow sense) is discouraged; new products are domestically produced rather than being imported more efficiently; the growth of cities as centres of industrial and cultural life is discouraged; steel, for a time, is made by everyone instead of by only the much more efficient steel industry." 36/

109. The emphasis on raising an individual's general level of understanding and intelligence, rather than narrow, specialized expertise, also increases the flexibility of the economy to respond to changing circumstances and needs, with a population imbued with multiple skills. "A peasant who has spent some months in a factory can more easily repair farm equipment." Communication between people engaged in different disciplines is also made easier.

110. Food is distributed fairly evenly; nutrition standards are high; natural disasters are averted to a large degree with a remarkable early-warning system; education achievements have been impressive; medicine, public health and sanitation, both in the cities and in the countryside, have been commented on favourably by all visitors; industrial production has risen on the average by 11 per cent per year since 1950; and the country has made large gains in the production of coal, iron, steel, fertilizers and oil.

The Implications of Alternative Styles of Development for Rural Development Activities

111. Social and political factors determine to a large degree the policy choices a government will make for rural development. Therefore, some authors have divided countries into three broad types (going beyond the dual-modernizing, or unimodal-bimodal separations discussed earlier), corresponding to 'technocratic', 'reformist' and 'radical' styles of development. 37/

112. The 'technocratic' style is characterized by a primary concern with increasing aggregate output, usually in a framework of private property ownership. As growth comes first, considerations of income distribution are postponed to some indefinite future period. Meanwhile, inequalities are welcomed as a source of inducing higher savings and investment rates. "Building on the best" is a concomitant of this development style.

113. The 'reformist' style seeks to mitigate the social and political tensions created by high economic growth by means of measures to distribute income, usually from the upper income to the middle-income groups. Partial reforms are usually undertaken, including tenancy reform, minimum wages, formation of co-operatives, etc. Considerable faith is placed in monetary and fiscal resources to correct 'factor price distortions' and market fragmentation. Re-distribution is tackled from an 'incrementalist' position of altering the pattern of distribution from extra income, or the allocation of new investments, rather than changing the existing distribution of wealth, or ownership of productive assets. Reformist styles have been difficult to implement consistently fashion over time, as they depend on a coalition of interests and determined political leadership. In practice, many of the measures prove ineffective, and the initial inequalities or 'distortions' reassert themselves.

114. The 'radical' style requires first changing the distribution of political power. This is done in order to successfully re-distribute wealth and income. Steps to increase economic growth and production can then follow. The objective is to ensure first equality and mass participation, then growth on the basis of shared sacrifice and effort. Considerable emphasis is placed on the full utilization of the labour force.

115. A technical co-operation agency of the United Nations must, of course, support programmes that are implemented under all three styles of development. The question should be asked, however, to what extent such programmes contribute to a rural development process which benefits the poor? The failure of "trickle-down" in the Third World, the emergence of a Fourth World, the re-definition of development itself to focus directly on the reduction of poverty, inequality and unemployment and to satisfy the basic needs of the whole population, indicate that the 'technocratic style' has not favoured a process of rural development.

116. Few developing countries have been able to implement any type of rural development programme favouring the weaker groups. The majority of the Third

World countries at this time cannot carry out policies that depend for their success on discrimination in favour of the politically powerless. It would appear that when such programmes are not accompanied by rather radical political transformations in which the group to be aided is important in the governing structure of the ruling party, they cannot be implemented. ^{38/} There is political resistance to policies of asset re-distribution, but in areas such as landownership and security of tenure, some degree of asset re-distribution is an essential part of any programme to make the rural poor more productive.

117. Activities to promote rural development even in a partial fashion, require a careful political and social analysis of the environment. Information is needed on the make-up of the political regime and of the bureaucracy. What is the relationship between them and how do their perceptions differ? Information is needed on social stratification at the grass roots level, the nature of local elites and linkages with the national structure.

118. Technical co-operation is principally concerned with finding solutions to technical problems. However, the definition of the problem itself and the impact of the technical solutions are dependent on the social and institutional environment. Thus, emphasis should be placed on the way the diagnosis of problems is undertaken and the way programmes are designed, implemented, monitored and evaluated, with much greater attention to the social and political factors.



AGRICULTURAL COMMODITY campaigns of national scale -- such as for cotton production -- need not only to establish close relations with co-operating farmers and field workers, but also to receive policy backing at the highest level.

UN Photo by Ray Witlin



NON-FORMAL EDUCATION in rural areas can benefit from improved use of media and communication techniques -- including video -- which can bolster mass learning programmes designed to provide what Mahatma Gandhi called "education for real life".

UN/UNESCO/RACCAH Studio



NON-CONVENTIONAL ENERGY PRODUCTION -- including revival of such traditional methods as the use of windmills to thresh grain -- can generate new productivity in agriculture and other rural occupations.

UN Photo by Bill Graham

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The emerging new approach to rural development assumes that peasants are quite prepared for changes which they perceive to be advantageous. In crop production, for example, this means that plant and behavioural scientists would work jointly with farmers in the provision of ideas and in the decision-making process.

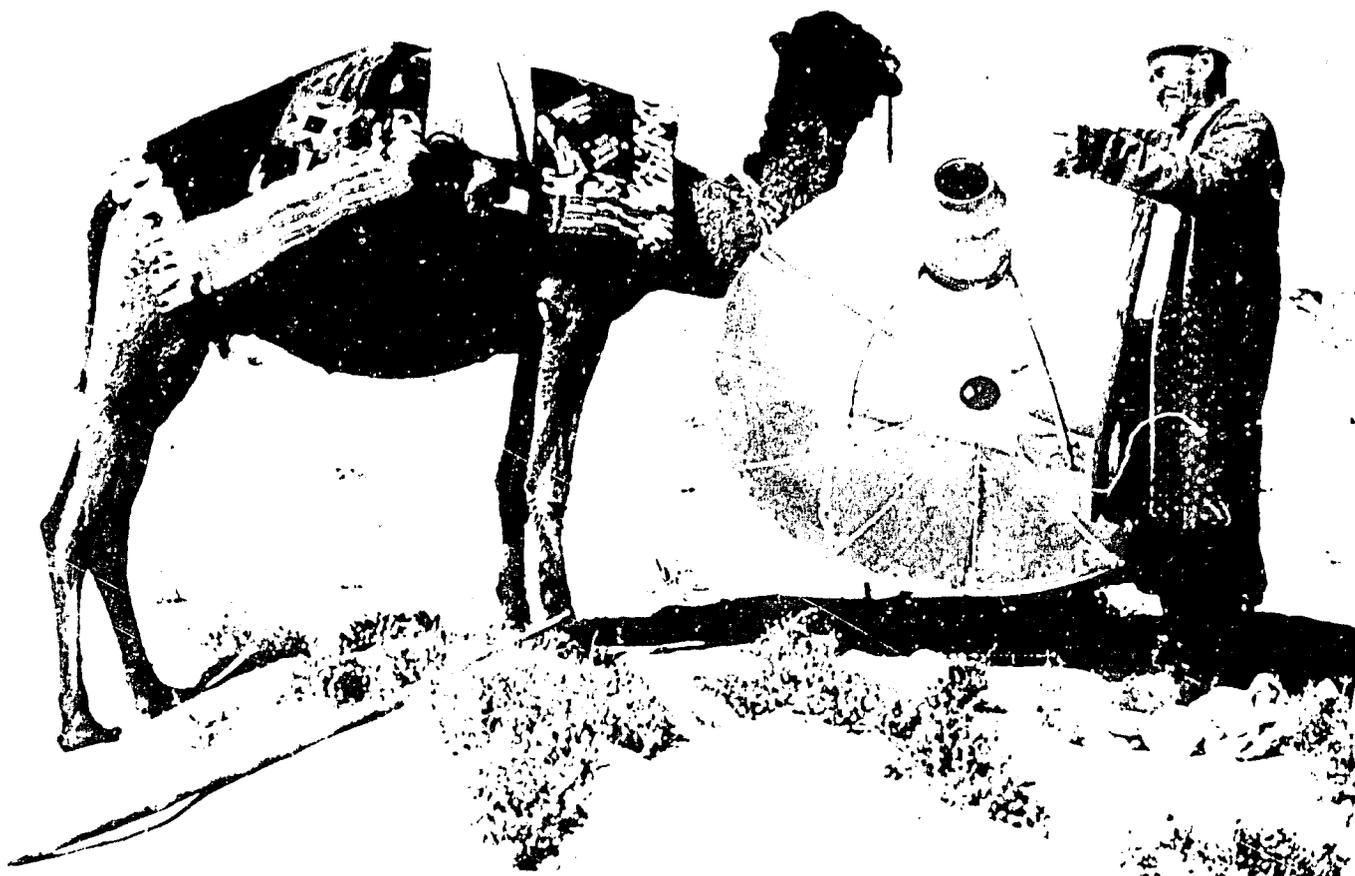
UN Photo by Bernard Wolff

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RURAL HOUSING, including community facilities, has received very little attention as part of rural development or in national planning. Improved small scale production techniques for everyday needs, such as clothing, housing and domestic utensils could lead to greater rural self-reliance.

UN Photo by Anthony Fisher



The potential for drastic improvement in the lives of rural people through BETTER TECHNOLOGY is undisputed; much attention is currently given to solar technology for water heating, cooking and driving pumps. What is extremely contentious is the best way to stimulate technological change.

UN Photo by S. Metelitsa



RURAL HEALTH programmes have the greatest success when they use primary health care workers, preferably selected from community levels, for such basic services as vaccination.

UN Photo by Ray Witlin



WOMEN'S RURAL OCCUPATIONS -- such as threshing, harvesting, food processing, etc. -- can be more productive both for women and the economy if labour-saving technologies are carefully introduced so as to avoid possible negative consequences for women's employment.

UN photo by Ken Heyman

CHAPTER VI - SECTORAL ELEMENTS OF RURAL DEVELOPMENT

Rural Development as an Integral Concept

1. Agricultural departments tend to equate rural development with increased agricultural output. Education and communication specialists have typically treated education as a separate sector rather than as inputs for all sectors. The medical profession has treated health in the same way. Industry has been generally viewed as modern and urban and thus in conflict with agriculture as a priority area for development. In competing for budgetary resources and skilled personnel, this compartmentalization may make sense to government and international civil servants. However, it is meaningless to the rural family living on the edge of subsistence, whose needs and problems are inextricably intertwined.
2. Any programme or project concerned with rural development requires a holistic view of the rural family or community in its totality. A project dealing with the health problems of a village should be concerned not only with preventive and curative health issues but also with questions of food production, consumption and nutrition, sanitation and hygiene, water resources, child care and family planning, literacy and the optimal utilization of local resources. Analysis of health problems should moreover include the root causes that may be related to political, cultural and social factors. Of course, the ability to deal with problems on a broad front must depend on the resources of the country and take into account the priorities as perceived by the poor.
3. The following sections explore the link between sectors in rural development, their potential relative contribution to the process, and the type of sectoral development that would tend to provide the greatest potential benefit to the rural poor.

Education, Training and Communication

Role in rural development

4. Education in the broad sense is central to rural development as defined in this paper. Education is essential for building self-reliance, creating and strengthening the capacity to participate in planning and making decisions, establishing local and national organizations, awakening political and social consciousness, and ultimately changing local and national structures and reducing social injustices and income inequality.
5. The importance of education in raising agricultural and industrial productivity has long been recognized. Since the early 1960s the role of 'human capital'-investment in man - has been used to explain the wide differences in the growth performance of countries that showed similar rates of investment in physical capital. All the other sectoral efforts at rural development will depend for their success on accompanying educational contributions. For long-term health improvements, proper understanding and training in preventive care and hygiene is required. The effort in combating malnutrition largely consists of education in the nutritive value of growing and cooking food in the right way. Education,

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particularly among women, has been shown to have a powerful effect in reducing population growth rates and fertility by changing attitudes to family size and raising the age of marriage. If the ability to participate in technological innovation of rural families and communities is to be encouraged, education is critical.

6. The traditional association of education with the school is recognized by UNESCO as one of the dogmas most damaging to a proper understanding of education. Education has been part of the experience of human beings everywhere throughout history in non-institutionalized forms of learning. Even today, informal practices continue to provide the only means of education for the majority of Third World agrarian society. The problem is one of building on, rather than replacing, those educational experiences and techniques.

7. Training is provided in rural areas outside the school system, in craft technologies, crop and animal husbandry, by the transmission of knowledge from parent to child, master to apprentice. Whereas the traditional function of training and communication for rural development was understood as being limited to persuasion and the transmission of information for modernizing backward areas, it is now seen to have a much wider role in "conscientization", organization, politization and "technification" through encouraging (a) personal expression, social interaction and relationship and (b) as an instrument of social and political change.

The nature of education for rural development

8. "Education suffers basically from the gap between its content and the living experience of its pupils, between the systems of values that it preaches and the goals set up by society, between its ancient curricula and the modernity of science. Link education to life, establish a close relationship between society and economy, invent or rediscover an education system that fits its surroundings" (Learning to be - 1972).

9. Contempt for manual work, for soiling one's hands, transmitted to the "so-called educated" by the colonial educational system, has proved particularly detrimental to rural development. Colonial systems of education stressed the academic rather than vocational character of teaching. Civil servants and administrators were drawn from graduates in the humanities or law. Macaulay's minute epitomizes the issue: "We must at present do our best to form a class who may be interpreters between us and the millions whom we govern - a class of persons Indian in blood and colour, but English in tastes, in opinions, in morals and in intellect". The famous starting words of the history texts taught in the French African colonies - "Our ancestors the Gauls...." - equally dramatizes the legacy.

10. There were some positive effects from the colonial experience: access for girls, introduction of a common language with other countries, and building a class able to administer and participate in trade. The main effect, however, was to create cleavages in the society and attitudes most conducive to indigenous, self-reliant development. The basic values of education were individualism, liberalism and competition and its content based on "Western knowledge". Science

education generally received a low priority, and vocational and technical education was neglected. Emphasis was on the humanities and the acquisition of verbal skills, especially the ability to read, speak and write the colonial mother tongue.

11. In most developing countries these systems have hardly changed since independence. Generally, the beneficiaries are the relatively affluent middle and upper classes in the urban areas. The rural poor rarely enter the educational system and when they do, they generally drop out at the elementary level. Growing proportions of school leavers are inculcated with unrealizable expectations of (urban) employment and an antipathy toward the rural community. Primary school is still designed to lead to secondary school and the university.

12. The prevailing system draws the most dynamic youths from the rural areas. Recent research on rural-urban migration has demonstrated that the propensity to migrate increases with higher education levels. Better job opportunities from higher education causes increased allocations to higher education and molds the lower education curriculum primarily as a step to reaching the higher levels.

13. Searching for a more relevant educational system, some governments have tried to modify educational curricula in rural areas, increasing its agricultural content or creating special rural vocational schools at the post-primary levels. Such efforts, which can be interpreted as attempts to perpetuate the second-class status of rural inhabitants, blocking the path to upward mobility, have mostly failed.

13. A key question is how non-formal and local learning systems should best interact with and influence the formal school system. Curriculum reform would appear to offer the best potential through the incorporation of village skills into schools. School can reinforce training materials provided by other ministries in health, population, agriculture, etc. The primary school could itself be considered as a terminal school that is employment-oriented.

15. "We should change the things we demand of our schools. We should not determine the type of things children are taught in primary schools by the things a doctor, engineer, teacher, economist or administrator needs to know. Most of our pupils will never be any of these things. We should determine the type of things taught in the primary schools by the things which the boy or girl ought to know if he, or she, is to live happily and well in a socialist and predominantly rural society, and contribute to the improvement of life there. Our sights must be on the majority; those most suitable for further education will still become obvious and they will not suffer." 1/

How the rural poor can have access to relevant education

16. "The poor are not educated to see their interests, and they are not organized to fight for their interests." 2/ Groups in power generally manipulate the education systems to perpetuate their own privileged position, especially when the education is largely dependent on the State. The system therefore reflects the structural characteristics of the economy and society, including its inequalities and dominant ideologies.

17. Education should convey the knowledge, skills and values that allow the poor to become intelligent, effective and responsible participants in the national struggle for social transformation. UNESCO has pointed out, "The democratization of education has as its aim - and at the same time presupposes as a condition the democratization of society itself."

a) Faith in the people's ability to learn, to change, and to liberate themselves from oppressive conditions of ignorance, poverty and exploitation.

b) Direct contact of learners with their own reality and its problems; analysis of the constraints imposed on them by social structure and official ideology.

c) Elimination of the differences between educator and educatee insofar as they are both learners. 3/

d) Free dialogue.

e) Participation in liberating action. In terms of communications needs this means that the people should have access not only as receivers but also as sources.

18. "Media are becoming more accessible to the participation of rural populations in programming. Messages are originated among the rural populations, and Government agents, technocrats and elites - who previously always acted as sources - are learning to become receivers. The content of the messages is more relevant to rural peoples' problems and needs. Rural people are learning to formulate and articulate their ideas and feelings about matters important to them. The Government is learning to communicate less paternalistically and with less authoritarianism, making possible a dialogue with rural populations. New technologies - such as audio and video tape recording - are making it possible to register messages and feedback from all parties in the dialogues, facilitating mutual perception and understanding." 4/

19. The guiding principle for education should be one of mobilizing all the productive resources of the village, first for training and literacy, then for better health and human investment, land improvement, water control, village industry, etc. Application of this principle is dependent primarily on the existence of local organizations that allow every rural inhabitant, however deprived, to feel that he will profit from the efforts demanded of him. These organizations should develop as power centres that will command respect and begin to countervail the power of urban groups. Since women are most neglected in educational and training systems in spite of the fact that they account for fifty percent of food production in the Third World, the World Food Conference "called on all Governments to include on their plan provision for education and training for women on equal basis with men in food production and agricultural technology, marketing and distribution techniques, as well as consumer, credit and nutrition information". (UN World Food Conference, Rome 1977 - Resolution VII). The Conference also recognized the key role of women in decisions on family size, child spacing, in child care and education.

20. Functional literacy courses for the whole rural community can be the first step in mobilizing local resources. A 10-year evening course in the vernacular languages can introduce educational modules incorporating the 'minimum learning needs' package and the literacy component essential to it. The traditional knowledge of the peasants can also be recorded at such courses. At the end of the course, the best pupils could become literacy teachers perhaps willing, as in Mali, to work without remuneration. Extension advice would be based on an exchange between indigenous knowledge and new information from outside, through collaboration between equals - literate farmers and technicians - who speak the same language.
21. The rural school could become part of the productive life of the community by becoming self-supporting as a farm and craft centre. Parents could visit the school to teach primary practices and learn to read and write in the evenings. If advised by the full range of Government agents, the school can become the promotion centre for the whole village, building up the skills used by the community, including management, accounting and financial skills, and promoting economic development practices which rely on the utilization of human and natural resources available to the local community. For example, the school can promote the use of waste water to produce algae to feed ducks and fish and eventually fertilize gardens or the utilization of village waste to produce gas for fuel.
22. Education for rural development emphasizes the training of rural inhabitants as educators themselves. Government employees with sectoral specializations then act in a supportive role as points of contact between community nominees and the state, rather than as direct trainers of the rural population. Training could take the shape of the UNESCO operational seminar approach (UNESCO, 1974) at which Government agents and rural people jointly analyze their problems and needs as well as the resources available (from both Government and local community) to meet them. The analysis would take into account the local social structure, the distribution of wealth and power and the relationship of the community to the state. Information would be collected on the physical and ecological resources available, even to the point of undertaking village socio-economic surveys. New approaches to production would be analyzed especially with reference to differential access to resources and the sharing of costs and benefits.
23. Education should be adapted to the conditions and needs of the rural environment. However, in rural areas it cannot be considered separately from the national education system. While different lines of emphasis may be followed in rural and urban environments, a division into "rural education" and "urban education" will undoubtedly not be very helpful in enabling rural peoples to reach a standard of living equivalent to that in urban areas, or in satisfying the dictates of social justice and national unity. Presently in most societies, where wage scales and social prestige are proportionate to education, educational systems should offer young rural dwellers the same opportunities as their city counterparts. The development of education in the rural environment should therefore be based on the principle of equality of opportunity. It is especially important that the quality and output of education in the rural environment should be gradually brought up to a level equivalent to that of urban education. In particular, too many rural primary schools offer only an incomplete course without any possibility of pursuing further studies.

24. An essential condition of progress in education for rural development is the training of qualified teachers and instructors in sufficient numbers. Such staff should be thoroughly familiar with the rural environment in order to be better able to adapt their teaching and develop close links with the rural families and communities concerned. The training of teachers on the lines of "ruralization" is crucial to the implementation and success of rural development programmes: thus strengthening of the staff of teacher training colleges, especially by personnel having an adequate background in agriculture and educational methodology, is of primary importance. In this connexion, it should be noted that the gathering of materials for inclusion in the curriculum and syllabi in both schools and teacher training colleges, the identification of local requirements and the problem of the inter-connexion of school with outside activities, requires an intimate knowledge of agricultural and rural development.

Health, Nutrition and Fertility

Inter-relationships and role in rural development

25. Malnutrition is perhaps the most dramatic indicator of poverty. Low life expectancy at birth, combined with high birth rates, is characteristic of most poor societies. Although health is given an independent value (like education) as a minimum need and a fundamental human right, it has not received sufficient attention in the development literature as a productive input to development.

26. Health status in rural areas is worse than in the urban areas of the Third World. The crude death rate in rural areas was estimated at 21.7 per 1,000 in 1960 by the United Nations, against 15.4 for urban areas. Access to clean drinking water and sanitation are almost non-existent in rural areas. ^{5/} Health services are largely concentrated in the cities, and the ratio between urban and rural populations per doctor vary from 5:1 to 60:1. Rationing schemes that may have significant impact on the nutritional levels of the poor mostly benefit urban consumers. Although the average life expectancy at birth for the Third World increased from 32 years in the 1930s to 49 years by the end of the 1960s, the risk of death in the first five years, particularly the first year, remains very high (an average of 140 infant deaths per thousand).

27. The core health problems of rural populations are (a) mainly water-borne diseases (intestinal parasitic and infectious diarrheal diseases, typhoid, cholera and poliomyelitis) originating from the contamination of food, water or soil with human waste; (b) air-borne diseases, including tuberculosis, meningitis, bronchitis and measles; and (c) malnutrition. These diseases account for the majority of deaths and morbidity among the poorest populations, particularly among children below the age of five.

28. There is a growing consensus among nutritionists that nutritional deficiencies, including protein malnutrition, are the result of inadequate intakes of food and therefore energy. Protein-calorie malnutrition rather than the "protein gap" is now seen as a more serious and widespread problem, in which a

deficit in energy limits the efficiency with which dietary protein can be utilized. 5a/ Food intake however, is highly correlated with income, especially in very low-income countries.

29. Fertility rates are related to health through the disease effects of overcrowding in homes and reduced nutrient availability per person. High fertility rates also imply high parity which in turn affects natural mortality by increasing the risk of death occurring after the third birth. Fertility behaviour appears to be closely related to health and education influences that change attitudes to family size; parents are more likely to limit family size when they are confident that children will survive to maturity. 6/ In most of the Third World, however, child mortality (one to two out of five) is well above any likely estimate of the threshold level required to induce the changes in attitudes required for wide acceptance of family planning. 6a/ (Johnson-Meyer, 1977)

30. "The rate of brain development is greatest during pregnancy and the first three years of life. The accumulating evidence supports the conclusion that severe chronic malnutrition during these critical periods of brain growth has a profound and perhaps permanently damaging influence on the adequacy of brain function, particularly the cognitive faculties on which learning and judgement depend." 7/ It is estimated that there are at least 500 million chronically malnourished children at risk in the world today, most of them in the rural areas. Child victims of malnutrition are unable to learn not only because they are hungry but also because their brains have an impaired capacity to learn. Malnutrition is seen as a direct cause of low stature as well as poor intersensory integration which is necessary for reading, writing and language development. A malnourished child is less responsive to the environment than a normal child, more apathetic. The fact that motor performance and adaptive behaviour are damaged by chronic malnutrition also limits the ability to acquire skills and to innovate.

31. The interrelated factors of health, nutrition and fertility exert a major influence on the potential for rural development. While improved health contributes to the input and productivity of labour and improves absorption of nutrients, its immediate effect in reducing mortality rates and even increasing fertility rates is one of increasing population. In a majority of countries a high rate of population growth places a strain on agrarian society through pressure on land and other resources, as well as on the Government's capacity to provide services. It reduces the amount of income and food available to each person, causes overcrowding in houses, and thereby threatens soil degradation, disease and malnutrition. On the other hand, as noted above, improved health and the reduction of child mortality are probably a major cause of declining birth rates.

Nature and Design of Interventions

32. As with education systems, health delivery systems in most Third World countries have been modelled on the experience of the industrialized countries, with heavy concentration on curative facilities, mostly limited to the urban population. As David Morley stated for Zambia in 1971. "Three-quarters of our population are rural, yet three-quarters of our medical resources are spent in the towns where three-quarters of our doctors live. Three-quarters of the people die from diseases which could be prevented at low cost and yet three-quarters of medical budgets are spent on curative services."

33. The training of doctors in standard teaching hospitals of the type found in the developed countries has been a major cause of the enormous brain drain of doctors from the Third World to Western Europe and the United States, causing, for instance, the number of doctors per head of population to fall between 1962 and 1965 in twelve anglophone and twelve francophone countries in Africa. Doctors trained in such centres are not likely to move willingly to rural areas. 8/ In Bangladesh, a discussion with students at medical assistant training centres revealed that their main interest was to obtain certificates that would allow them to work in the Middle East or London. "A new system has to be developed through which future medical graduates and para-professionals will be produced for domestic consumption rather than act as a source for earning foreign exchange." 9/ Even rural health centres have become almost totally curative in nature. The distance that people have to travel to them is a major obstacle. An Indian study indicated that the rural population using the services of the Primary Health Centre decreases 50 per cent for every additional half-mile, and 60 per cent of their patients live within a one-mile radius. Overall, WHO estimates that less than 15 per cent of rural populations in many Third World countries have access to health services. 10/

34. The three characteristics of a suitable health programme for the Third World have been identified as the training of doctors as educators and preventers of disease, the widespread use of local materials and people, and the concentration of effort on prevention of disease in rural areas. The uniting of Western and traditional medicine is also seen as a highly desirable way of pooling resources and increasing community involvement. 11/ The ayurvedic medicine of Hindu India, the ancient traditions of Chinese and Arabic medicine, the herbal cures of Africa and among the Indian communities of Central and South America, can be built upon rather than rejected. An extensive joint study of health patterns and health care undertaken in a number of countries (China, Cuba, Tanzania, Venezuela, Yugoslavia, India, Bangladesh, Niger, Nigeria) resulted in a recommendation to WHO and UNICEF to extend the adoption of primary health care systems (or the re-orientation of existing health services). The interest in primary health care promoted by this and other studies led to the holding of an International Conference on the subject in September 1978 in Alma-Ata, USSR. The Conference adopted specific recommendations to governments and international bodies, and, as well, a "Declaration of Alma-Ata". The Declaration defines primary health care as follows: "Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first

element of a continuing health care process." A number of basic characteristics of PHC are enunciated in the Declaration, including, inter alia, the following:

"Primary health care:

- a. reflects and evolves from the economic conditions and socio-cultural and political characteristics of the country and its communities and is based on the application of the relevant results of social, biomedical and health services research and public health experience;
- b. addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services accordingly;
- c. includes at least: education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition, an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs;
- d. involves, in addition to the health sector, all related sectors and aspects of national and community development, in particular agriculture, animal husbandry, food, industry, education, housing, public works, communications and other sectors; and demands the coordinated efforts of all those sectors;
- e. requires and promotes maximum community and individual self-reliance and participation in the planning, organization, operation and control of primary health care, making fullest use of local, national and other available resources; and to this end develops through appropriate education the ability of communities to participate;
- f. should be sustained by integrated, functional and mutually-supportive referral systems, leading to the progressive improvement of comprehensive health care for all, and giving priority to those most in need;
- g. relies, at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as needed, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community."

35. Because of the linkages, integrated approaches to the delivery of nutrition, health and family planning services would permit each activity to increase the attractiveness and effectiveness of the others. 11a/ The mutually reinforcing effect of a composite package would improve the frequency and timeliness with which any single element of the programme is introduced and would allow the use of a single health worker or team. Through the presentation of a package of interrelated innovations, the adoption of one would imply the subsequent or continued adoption of others. 12/ The integrated approach would improve the chances for acceptance by the rural population of each of the elements, increase the interaction of government staff, improve cost effectiveness, and attract the necessary political and financial support at the national level. Programmes to improve rural drinking water supplies and sanitation could be combined in such an approach, especially if much of the labour and part of the financial contribution comes from the local communities themselves. The essential link for all these programmes is the rural community where the people themselves become partners in the health delivery system and the creation of health awareness.

36. In the case of nutrition there are persuasive arguments in favour of specific, low-cost distribution programmes, including vitamin A capsules and adding potassium iodide or iodates to salt to eliminate goitre. Diet can be improved by altering habits in the selection of foodstuffs. Also the beneficial effects of resisting tendencies to abandon breast feeding and improving child feeding practices in general have been well documented. However, it is the shortage of food intake that argues for a much broader attack on increasing agricultural output and productivity combined with better distribution. An agricultural development strategy, based on technologies that economize on scarce capital and foreign exchange, makes full and efficient use of labour, and permits large increases in total factor productivity, moreover, enlarges the resources available for providing safe and more adequate supplies of water, other improvements in environmental sanitation, and for better health care.

Population, Habitat, Infrastructure and Rural-Urban Links

37. One school of thought believes that the primary stimulus to economic development and technical change in rural areas has come from the growth of national needs through population growth beyond the level which the existing environmental relations can support. Consequently, more intensive ways of exploiting the natural environment have to be found. For example, the progress of agricultural techniques from slash-and-burn to multiple cropping can be traced as a result of population increase, requiring a gradual shortening of the fallow period followed by annual and multiple cropping under the plough and irrigation. 13/

38. The growth of towns, trade and industry in Europe were a response to the need to find additional sources of income as population exceeded the capacity of traditional agriculture to provide subsistence. 14/ The majority of Third World countries have to cope with a similar higher and more sudden increase in the rate of population growth as well as a more limited potential for industrialization. Thus, uncontrolled population growth not only makes universal access to adequate nutrition, health, education and social services more difficult to attain but also depletes non-renewable natural resources, leads to environmental deterioration and stress from overcrowding and limits the opportunities for women, children and future generations to share in productive self-fulfillment.

39. If present urbanization trends continue by the year 2000, three-quarters of all Latin Americans and one-third of all Asians and Africans will live in cities. Mass migration from rural to urban areas has been largely responsible. Between 1970 and 1975 alone, it is estimated that 73 million people in the Third World moved to cities, most of them to the largest cities numbering more than one million inhabitants each. It is these cities that demonstrate the greatest disparities in income, where unemployment is most concentrated.

40. Settlements have tended in the past to be a 'residual' of other decisions and priorities. "The city in history has been the focus of civilization, the creation of true 'urbanity', but since the coming of the technological order, most

settlements have grown not with any particular civilizing intent but largely as a result of decisions made by a few groups and interests about a whole range of other issues - transportation, overseas links, access to raw materials and manufacturing sites, growth in national capitals, imperial connections and so forth. The result has not, in the above, offered satisfactory contexts for human living. There are enclaves of affluence amidst the deepest deprivation in Third World cities, ghost towns and villages haunt the countryside. Vast urban and suburban sprawls eat up farm land, consume energy in almost mindless mobility, show an astonishing mismatch of jobs and residence and contrive to pollute with varying degrees of severity all the surrounding life support systems of air, soil and water. The biggest expansions take place within areas least supplied with resources to cope with the explosion." 15/

41. Most Third World countries have inherited their settlements pattern from the period of colonial control, when the coastal cities that were basically extensions of European trade grew with few links to their hinterland. Today's capitals are generally of this colonial origin, whereas traditional capitals dating back many more centuries have mostly decayed. Most of the industrial development occurred in these port cities and former colonial administrative centres. Factories dependent on each others' production had to be located close to one another. Infrastructure including transport, power generation and transmission, housing, schools, and hospitals, tended to reinforce the metropolitan bias, while investments in the rest of the economy tended to be neglected. Subsequent population growth and migration to these capital cities resulted in still further investment in their services and industries.

42. Factor and product markets appear to function more efficiently in areas of rapid urban-industrial development. 16/ A series of market relationships may be shown to link the rural community with the urban-industrial economy: the product market where rural goods are sold in urban areas; the market for purchased inputs from the industrial sector used in rural production; the labour market which determines urban and rural as well as economic and household distribution of labour; credit and land markets; and the market for consumer goods and services through which rural communities are provided with the items produced in the urban economy.

43. Rural areas require the dynamic potential offered by urban-industrial growth. Instead of concentrating all effort on the major cities, regional planners see the need to build up intermediate centres as "growth poles" that can attract the rural flow away from the major concentrations and provide the productive services essential to farming communities. These regional market centres can be endowed with co-operative banks, light industries serving agricultural consumer needs and producing basic tools, warehousing and storage, secondary schools, a small hospital, some recreational facilities, and all-weather roads leading to the villages they serve. These intermediate centres could in turn be supported by and

serve the big cities with populations of 500,000 or more.

44. The minimum viable settlement size for basic services has been calculated to consist of 1200-1500 persons, or 250-350 families. At present the number of villages per urban centre in India is 185, in Indonesia 355. Countries that are more "spatially organized" such as Yugoslavia or Taiwan have about fifteen. "A hierarchy of cities and towns functionally linked with agricultural production areas provide a decentralized network of development centres that can increase access of large segments of the population to economic, social and political opportunities as well as to urban services and facilities. Urban functions and services can thus complement the wide range of technical inputs required to commercialize agriculture and increase rural productivity. Distribution of services and facilities is crucial not only for promoting economic growth but also in creating social equity and in improving the quality of life." The interaction between villages, market towns, intermediate cities and metropolitan areas is complex. In some cases, better transport and other linkages promote growth and diversification in existing centres or open up new "central places", while in others, the introduction of new technologies or new productive activities promotes increased linkage between central places and the rest of the spatial system.

45. Considerable importance is given to the role of roads, particularly rural feeder roads, in the literature on rural settlements, even to the point of making them basic to the whole process of rural development. In many parts of Africa and Latin America, farm-to-market roads have promoted the commercialization of agriculture, raised productive capacity and increased social mobility. For an effective farming system where a farmer can make a one-day round trip to a market centre, adequate roads are crucial. In addition he requires the market centre itself, local verification trials of new agricultural technologies, access to agricultural extension services, and to farm production credit. Beyond this "farming locality" lies the regional "farming district" made up of adjoining farming localities, and acting as their service centre for high levels of markets, agricultural research, extension administration, banks, roads and communications. The setting up of effective farming districts and localities will also make it much easier to provide the remaining infrastructure required for rural welfare such as schools community and medical facilities. 17/

46. The Vancouver Declaration of Habitat states: "Adequate shelter and services are a basic human right which places an obligation on governments to ensure their attainment by all people, beginning with direct assistance to the least advantaged through guided programmes of self-help and community action." Generally,

however, rural housing (including community facilities) has received very little attention as part of rural development. The level of local resources available for construction or improvement is also determined by other factors such as land ownership, employment and income. Much depends on whether people own their own land or live as employees in rented homes or haciendas, plantations or agro-industries. If improved housing is not accompanied by an adequate income, it can become an added burden. "As a general rule, a household in a developing country can afford a house valued at roughly three times its annual income." 18/ Maintenance costs (financial as well as skills) rather than the capital construction are often the principal problem.

47. Overall, in rural areas, it is not shelter itself so much as the services that are lacking. Access and transport, water drains, energy, education and health care, are the deficiencies in rural infrastructure which cannot usually be met (as can shelter) on a purely self-help basis. Probably the most urgent need is clean water, particularly as irrigation and multiple cropping increase the risk of schistosomiasis and growing populations increase the risk of fecal contamination. The drudgery of women is nowhere more obvious than in the collection of well or stream water over long distances. (Water carriage can add fourteen days to the annual workload). In many countries, collection of firewood or preparation of cow dung fuel is an additional burden. Opportunities for recycling organic wastes into compost, biogas energy, or the use of solar and wind technologies have enormous potential for rural settlements. 19/

48. Improvements to existing settlements is the only practical path with a large part of the resources coming from the rural communities themselves. Earlier sections on education and health have noted the principles of community initiative and participation which are equally valid for the construction and maintenance of other infrastructure for rural development. The emphasis on roads and market towns in the regional planning literature relies on market forces to distribute the benefits from their existence. Research into their socio-economic impact indicates, however, that it is principally the more prosperous, commercial farmer with substantial resources and surpluses to sell who benefit most, whereas the rural poor are likely to profit more from improvements to village services which they can manage themselves.

49. The difference between national and urban growth rates is used as a rough measure of migration to show that 30 to 60 per cent of urban population growth during the 1960s was due to migration. For instance the proportion of persons born outside the city in 1969-1970 ranged from 40 per cent in Mexico City and Rio de Janeiro, and 57 per cent in Seoul to as high as 76 per cent in Nairobi. 19a/ However, there are a number of complicating factors. Most migration in the Third World is urban-urban or rural-rural, and some rural-urban migration is temporary. The proportion of the migrant population of large cities born in other urban

locations varies from 15 per cent for Dar es Salaam (1970) to 50 per cent in Lima and 70 per cent in Santiago. Latin America and West Asia have falling shares of rural population, whereas in Africa and South and East Asia the share of rural populations leaving for urban areas is less than rural population growth. In many cases, the definition of 'urban' causes confusion. The growing boundaries of cities include villages where the pattern of life does not change much, or simply, by natural growth, a rural settlement may exceed the boundaries of an arbitrary figure such as, five thousand population, thereby giving the illusion of urbanization. Temporary migration is also growing in those cities where the number of job opportunities are increasingly limited (e.g., Calcutta), and except in South America, the urbanizing migrant streams have been heavily male-dominated in the child-bearing age groups, thereby slowing the urban rate of natural increase. 20/ Higher levels of education, better health services and access to family planning facilities also contribute to lower birth rates in urban areas.

50. A large number of village studies, especially in Asia and Africa, indicate that those who leave the village permanently are generally better educated, possess some skills, and frequently display leadership qualities that could have served their villages. Even considering remittances, the overall consequences of migration leave villages worse off than before. The most deprived villagers, e.g., bonded labourers in India or the Latin American peons on the haciendas are often restricted to the village by custom or law, others by debt. Problems of transport, language or dialect, and lack of information on job prospects are barriers for the very poor would-be migrants. A new migrant usually requires support from his family or savings for the initial period of stay in the city. "The propensity to migrate increases with closeness to a large town, population size of the village of origin, economic well-being of the rural household, number of relatives in the urban area, and the individual's level of education. 21/

51. Expectation of economic gain has usually been cited as the principal factor that leads to rural-urban migration, followed by the difference in access to public services, entertainment facilities, etc. In the Harris-Todaro model, the decision to migrate is largely determined by the individual's expectation of earning a higher income, expected income being defined as the actual urban income multiplied by the probability of obtaining employment. 22/ The partial evidence available from empirical studies indicates that these expectations have been largely fulfilled. (See Yap op. cit. for a review of evidence). Most migrants find jobs quite quickly and obtain substantial earnings from their new employment. Furthermore, new migrants are assimilated into the urban labour market although they may pass through the informal sector for a time. Return migration is not well documented, but economic failure appears to account for only a small proportion. Although private gains to migration may be high in terms of future income streams and profitability, it may be that the profitability of urban occupations is artificially high because of faulty pricing and investment policies. 23/

For instance, a doctor migrating to the city will certainly increase personal income, but in what sense is the welfare of national society likely to benefit from the shift?

52. As pointed out earlier, most Third World educational policies and content has tended to increase the chances of migration of the rural educated to the cities, so that the benefits from education go to the cities while the costs are borne by rural families and communities. Under present policies, rural job prospects for trained villagers are poor in terms of remuneration, even for those who have skills appropriate to rural conditions. For example, agronomists in many countries work in commerce, industry or the bureaucracy rather than in agriculture.

53. The scale of urban-rural remittances is not well known and contradictory, ranging from sizeable (10-20 per cent of rural income) to negligible or even negative if reverse remittances (flows from the rural families to support migrants while they look for jobs or homes), rural savings, and educational costs are taken into account. 24/ Also there is little information available about the impact of rural-urban migration on labour productivity, income distribution and employment in both rural and urban areas. Changes in the supply of rural labour and agricultural wages-rates can be counteracted by the technology adopted by the larger farmers and changes take place in leasing land. Migration will also affect food prices through higher demand in urban areas, thereby lowering the real income of the urban poor. The effect on urban wage-rates of migration will depend on the effect of Government exchange-rate and capital import policies on the technologies adopted and their labour-intensity.

54. Migration, of course, is not the only rural-urban link of importance for rural development. Nevertheless, the analysis of migration shows that one cannot be as sanguine about the influence of the city as the regional planners and central place theorists would have us believe. Rather than the city being considered the origin of all development-stimulus, there may be an "urban bias" in resource allocations and sectoral policies that is responsible for many of the obstacles to development and for the continued poverty of the rural poor. 24a/ Also, the city is the centre of government and national power and the source of many cultural, and social influences. Beyond the market and economic impulses already noted, the circulation of goods, ideas and people between country and town, made possible by improved transport and communications, incorporates rural people into a national as well as international system. "The drive towards incorporation brings to neighbourhoods and rural localities a set of formally organized institutions (some a part of the State apparatus and some not) which are characterized by national standardization, conformity to urban cultural norms and development aims, such as schooling, public health, agricultural development, provision of credit, education of adults, mobilization of peasants in community organizations or as voters or in political associations, in football and sports clubs, as converts and as the recipients of charity." 25/

55. These new institutions have been introduced from the outside, and their management requires urban skills. Those who are able to acquire and make use of them are the more favoured, better educated peasantry, leading to a process of stratification between those who are urban-oriented and sustained by urban reference groups and the others who remain behind. As the national institutions gain in importance, and an increase in controls from the urban centres is exercised directly over the community, the importance of the neighbourhood as a community declines. The results of incorporation for different social groups depend on their initial endowment of resources: the new facilities have to be competed for, but "their distribution is differential because the competitors are unequally equipped for the struggle".

56. Consumer goods available from the city have produced changes in rural tastes and aspirations and have competed with local craft production. Their impact has been strengthened by the mass media and a deliberate attempt in many countries to portray material incentives to stimulate the effort required to "modernize". The way of life of the urban middle-class, itself often an imitation of the life-styles of the middle-class in the developed countries, is pictured as a necessary concomitant of urban status, power and economic influence. Values associating individual reward with individual effort are largely a Western and urban concept. Communications "will have to teach many millions of simple folk around the world to associate personal reward with personal effort, to acquire a work ethic appropriate both to what they want and what they get". ^{26/} The changing of values is perhaps the most far-reaching of urban influences on rural society, particularly as it replaces community interests with the desire for individual advancement. It is far from clear whether such values are in harmony with a rural development process which is possible in today's Third World and which will benefit the rural poor.

Climate, Natural Resources and Farming Systems

57. The influence of climate is frequently ignored in development analysis although it molds the pattern of agrarian life more than any other factor. The natural resources available for rural development, principally land and water, constitute the raw material for the production system. The farming system represents the response of the farm household - the main rural producing unit - to the climate, to the availability of natural resources, and to the environment, making use of the technologies that have been evolved over time.

58. To understand the influence and interaction of these factors involves, firstly, taking stock of the initial situation by means of an inventory of the resources available: physical and natural in terms of land and water and their quality, the pattern of land and water use (including the vegetative and forest cover), the livestock population, fishery resources, and energy resources; and human in terms of population density, age structure, health, skills, level of education; the spatial distribution of natural and human resources; the effects of climate on development prospects. The combination of resources and the technologies used to exploit them determine the rural development potential of an area.

59. It is easy to forget that most Third World countries lie between the Tropic of Cancer and the Tropic of Capricorn, in the wet equatorial, dry tropical and monsoon zones. 27/ This fact alone leads to vast differences in the initial conditions with which today's poor countries are faced compared with the pre-industrial phase of the rich countries. Kamarck's book on the effects of climate on economic development 28/ shows how development efforts need to be much greater in the tropics to achieve similar results to those realized in the temperate zones. Land erosion and leaching of the top soil is more serious in the tropics, while arid areas suffer from a chronic deficiency of rainfall. The high evaporation rate leads to greater salinity following irrigation unless water is carefully controlled and expensive drainage provided. Rainfall goes through large and unpredictable variations, either too much or too little. Continuous heat and the absence of frost leads to a multiplicity of species and their rapid evolution, making it difficult for a newly-introduced variety to survive. The soil structure and the humus have to be protected against the ravages of the hot sun, torrential rains and wind. Most tropical soils are poor in organic material and fertility. Land preparation is more difficult because soils are hard and dry before the planting season. The poor nutrient composition of tropical soils makes it difficult to grow plants rich in protein. The cost of insect and weed control during cultivation as well as to control post-harvest losses tends to be much higher. Insect and red locusts are a particularly notorious bane of the tropics for which no permanent solution has yet been found. It is estimated that Africa's cattle population could be doubled if trypanosomiasis and the tsetse fly were eradicated, increasing the possibility for draught cultivation as well as protein supply. Finally, climate affects human productivity and health as a result of debilitating diseases, particularly those brought by parasitic worms. Bilharzia, malaria, river blindness and sleeping sickness are a few of the most common diseases.

60. Land stands out as the single most important natural resource for rural development. Land-man ratios - the amount of arable land available to the national population - are commonly used to express the variation in potential for agrarian development between countries. 29/

61. Also significant are the water resources available and used in agriculture, the irrigated area being expressed as a percentage of the cultivated area. 30/ Most countries still have a considerable potential for further irrigation and thus for increasing cropping intensity. In general, cropping intensities (harvested areas as percentage of cultivated area) are high only in the rice-growing regions of Asia (100-180 per cent) and are generally low (25-60 per cent) in Africa and Latin America, with the exception of Egypt. 31/

62. A comparative study of agricultural policies and performance in 49 countries undertaken by FAO (Szczebanik, 1975) clearly indicates that favourable man-resource ratios do not signify better agricultural performance as measured by agricultural growth rates, land or labour productivities. Many countries with impressive agricultural growth rates have had adverse

man-land ratios (most densely populated per arable hectare), e.g., S.Korea, Taiwan, Japan, Mexico. Seemingly factors other than natural resource endowments therefore play a more important role, including Government policies, local organization and the type of development strategy that is pursued. This observation, however, only holds for countries at a fairly advanced stage of economic development where a large proportion of the output increase is ascribed to capital and technology embodied in purchased inputs and skills. On the other hand, where the national economy is still characterized by subsistence production, development prospects are clearly related to natural resource endowments. This is equally true of countries such as Mexico which demonstrate a high aggregate per capita income and rate of agricultural growth but which still have a large subsistence sector limited by the availability of land in relation to population.

63. Farming systems have evolved differently in the three major tropical regions of the rain forest, savannah and alluvial river basins. In the West African rain forest, the tree crops of coconut, rubber, cocoa and perennials such as cassava, yams and bananas are cultivated with fairly rudimentary techniques using mainly human labour and simple tools. The tsetse fly prevents the use of draught animals, and the intercropping of food and tree crops inhibits extensive tillage. Crop land is only partially cleared before burning, and planting and weeding are disorderly. These methods, however, suit the fragile rain forest soils quite well. "The constant vegetative cover provided by mixed and sequential cropping prevents erosion and excessive leaching of nutrients that unimpeded heavy rainfall would bring; the cover also slows down oxidation of humus content from the heat of the sun. Total crop failure is insured against by a mixture of plants with different moisture and soil requirements and with different tolerances for drought, wind and pests. Incomplete clearing and poor weeding, although not unrelated to the limited range of African farm tools, serve to provide shade and protection to the soil and to assist in re-establishing natural forest. Small, isolated fields are more easily recaptured by the natural vegetation than larger ones; at the same time spread of plant disease is much slower."32/

64. Similarly the technology represented by the selection over many centuries of the indica rice varieties throughout tropical areas also demonstrates the way in which local conditions have been optimized. Poor soils and the need to ensure minimum yields under variable climatic conditions are matched by the plant characteristics of height above flood levels, insensitivity to nutrient changes, late-maturing of the grains after the rains. The indigenous (desi) plow developed by the Indian farmer in the savannah region helps to conserve soil moisture and can be pulled by poorly-fed bullocks. Other implements may include a Persian wheel for water pumping, a hoe, a spade and a sickle. Rice in the wet season is alternated with pulses, wheat and peanuts in the dry season.33/

65. Farming systems must be studied in their entirety, rather than as technologies in isolation, because they reflect an integrated response to the environment, the needs of the farm family and the division of labour, and the prevailing social organization. Farm households are engaged not only in farming but also in supplementing their income from the land with village

crafts, retail trading and wage-labour in construction, etc. The pattern of work is dictated by the seasons, and technical practices as well as social institutions are designed to avert risks that would be disastrous. For instance, mixed and sequential farming reduces the risk of losing all crops to drought, disease or pests, although it requires more labour. The large size of the household similarly acts as insurance against the risks of sickness and old age. Many countries in peasant society based on reciprocal exchange within the community reflect the same preoccupation with security. Attempts to introduce innovations to part of the system without understanding its contribution to the whole may do more damage than good.

66. Peasants or traditional farmers rely on local knowledge of resource characteristics and on locally available energy and materials for resource management, in contrast to commercial farmers who rely on information from scientific and technical sources outside the village, and on supplies of fuels, chemicals and equipment also from outside. This distinction accounts for productivity differentials. Moreover, traditional farming systems demonstrate natural resource management and conservation. Reliance on human and animal power rather than fossil fuels continues to make sense in most areas in terms of relative factor scarcities. At the same time, the total effects of small improvements to the traditional technologies practiced by the majority of Third World farmers, as distinct from completely new innovations only accessible to the few, would be enormous.

67. Many rural tasks require group effort for which co-operative forms, sometimes involving many villages or even whole societies, have been developed. Excavation of water tanks, small dams and canals are common examples. The qanats or karezes (filtration canals) of Afghanistan or Iran are particularly ingenious cases of engineering developed over many centuries. The potential for windmills to improve the effectiveness of traditional water-lifting devices, or for small irrigation systems rather than large-scale irrigation works, may be considerable.

68. Helping farmers to obtain a more exact understanding of soil properties and deficiencies on their individual plots, where traditional soil management has been practiced through long experience, will require modifying modern soil-testing methods. Small plots rather than large consolidated fields facilitate the management of crop micro-climates by regulating flows of heat and water through ridges, windbreaks, and tillage practices. They also facilitate crop rotation and inter-cropping patterns so that space and ecological conditions are optimized. Again, research and modern instrumentation may help to improve rather than replace these systems.

Technology, Energy and the Environment

69. "What is it that we really require from the scientists and the technologists?" I should answer: "We need methods and equipment which are cheap enough so that they are accessible to virtually everyone, suitable for small-scale application, and compatible with man's need for creativity." 34/

70. Technology is both a resource for creating new wealth and an instrument for social change. Most increases in productivity depend on the application of improved technology which may be thought of as the know-how derived from scientific knowledge and incorporated in some object, process or activity. In rural development, technology may be embodied in new seed varieties, in new cropping techniques or construction methods; it may consist of the knowledge required to manage a farm, organize a co-operative or establish a primary health care system. Distinctions may be drawn between the "hardware" of visible products and machines, and the "software" of experience, education and organizational forms.

71. Technology is always owned, and it gives its owners power to exercise control over society through cultural and political influences as well as economic advantage. Widespread control or mastery over technology has a determining influence on the potential for popular participation in decision-making; decisions are otherwise taken by technological elites. The social, psychological and ecological costs of a technology should determine its desirability rather than simply its profitability. For rural development the importance of equity, of reducing dependency, of cultural diversity and of growing in harmony with the environment have to be kept in mind in assessing the kinds of technology that are worth introducing, as well as the manner of their introduction. "Man have used technology to conquer nature. Had they respected nature in the past, however, they would have devised technologies quite different from those they actually produced 35/."

72. Technologies and new forms of organization which are better suited to local conditions, have been called, variously, "intermediate", "low-cost" and "appropriate". These terms are relative: "Intermediate" refers to the relative complexity of a process, "low-cost" to its economic dimension, while "appropriate" represents its adaptation to the social and cultural environment as well as to its economic viability and technical soundness. Examples of such technologies range from the introduction of the ox-plough to African agriculture (intermediate between the hand-operated hoe and the diesel tractor), a water-filtration system using rice husks in Thailand (low-cost), a solar pump developed in Senegal and used in large numbers in Mexico (appropriate to the environment).

73. Although technology has a key role in all aspects of rural development, it has been associated primarily with problems of production and productivity, particularly in agriculture. In agriculture, common areas for improved technologies include better farm management and the use of improved farming practices; the utilization of new seed varieties and breeds of livestock; use of power and mechanical equipment; application of herbicides, pesticides and chemical fertilizers; expansion of irrigated area and better water management; and the adoption of new methods for the processing, storage, transportation and marketing of agricultural products.

74. The development of agricultural technologies has taken place since the domestication of wild animals and the selection and cultivation of plants. Population growth was one of the major factors in technological development, leading to a shortening of fallow periods, then to multiple cropping and

careful water management, the use of manure, etc. The great river valley civilizations in the Near and Far East and the pre-Colombian indigenous cultures of present-day Mexico and Peru and highly advanced farming systems using improved varieties, fertilizers and sophisticated irrigation systems. These imperial structures were built on the generation and utilization of the agricultural surplus resulting from technological advance.

75. The peasant family may be thought of as owning the land on which it farms, living in a house built mainly by the family from local materials, self-sufficient in food. Surplus food may be marketed, but the cropping pattern is based essentially on family food needs, with farm animals contributing to these needs, and surplus animals being consumed for ceremonial purposes such as weddings and funerals. This arrangement entails a high degree of family self-reliance, with labour needs provided wholly by the family, educational needs limited to the progressive learning of manual and technical skills from parents, and seed and planting materials generated on the holding. Crop failure is guarded against by staggering planting dates and mixing crops, and pest and disease build-up minimized through long fallows and small, often scattered plots. Thus the peasant family controlled its labour and other input needs and possessed a depth of knowledge concerning the soil characteristics (often with a rich vocabulary for different soil properties and types) and the reaction of local varieties to certain weather patterns and pest build-ups. The local community also exhibited a high degree of autonomy as peasants exchanged, often directly through barter, their food surpluses for locally-produced consumer goods.

76. This self-reliance has largely broken down as farming has become commercialized and mass communications have created demands for goods needing large-scale production methods. Self-reliance has been lessened at the individual family farm level as cash crops and new varieties of food crops have required purchased inputs and, in some cases, irrigation and drainage facilities. These needs in turn have created new demands for production credit and technical advice which have been met mainly by Governments. Manual and traditional husbandry skills handed down directly from generation to generation have to an extent given way to an emphasis on technical knowledge learned externally, and skills previously transmitted to children have decreased in relevance. The store of farming wisdom, built up over generations, has now become of uncertain value in the minds of rural people.

77. The new patterns of labour-demand often create bottlenecks which must be solved by hiring labour and by mechanization. Traditional sex roles also undergo changes. In many African countries men become responsible for most operations on certain cash crops instead of confining their activities to seed-bed preparation. The rise of cash purchase, together with the concentration of cash crop sales in men's hands, has led in many cases to wives becoming more dependent on their husbands for needs which formerly were met directly from within the family or from barter with surplus food crops under the control of women. Greater intensity of land-use especially in irrigated areas and larger areas cultivated as a result of mechanization have tended to place new burdens on the womenfolk without an off-setting reduction in their child-rearing, food preparation, water-carrying and other household responsibilities.

78. The introduction of the new seed-fertilizer technology of High-Yielding Varieties (HYVs) of food grains has accelerated the departure from traditional farming. The use of chemical fertilizers, pesticides and herbicides, and of fuel energy for irrigation represent an increase of need for purchased inputs, in addition to the cost of seeds, and because organic farming has largely been overlooked, a greater dependence on industrial output. Also, weeding, watering, plant-spacing, fertilizer application, and transplanting are husbandry practices that need to be learned.

79. The new technology, if it is to be fully exploited at current factor prices, requires higher expenditure or working capital for fertilizers, pesticides, draught power for land preparation and labour for weeding. Consequently, a severe pest attack, canal failure or drought results not only in the loss of a crop but also of working capital. The consequences of failure become more serious, and small farmers, worried about having to sell their land to pay off debts, are less likely to take the risks associated with the switch.^{36/}

80. The prevailing patterns of wealth and income distribution determine the socio-economic consequences of introducing the new technology. Where an area was characterized by equity, the effect on both productivity and equity has been favourable; where large inequalities were present, the impact on productivity is weak and the inequality has been reinforced.^{37/} It is not the technology that is responsible for the fact that the poor do not benefit. "When all is said and done, it is not the fault of the new technology that the credit service doesn't serve those for whom it was originally intended; that the extension service is not living up to expectations; that the panchayats are essentially political rather than development bodies; that security of tenure is a luxury of the few; that rents are exorbitant; that ceilings on land are merely notational; that for the greater part tenurial legislation is deliberately miscarried, or wage scales are hardly sufficient to keep soul and body together 38/."

81. The Green Revolution increased production, but it did not improve the distribution of income. There can be no disagreement that increased agricultural production and productivity is required, but Governments pursuing increased production through the HYVs should be cognisant of the distribution implications.

82. Science policy can be oriented towards technical change that is concerned with minimizing dependence on fossil fuels. Biological engineering can develop improved plant varieties that reflect the factor endowments and ecological conditions faced by poor farmers. Biological nitrogen-fixation can be encouraged. Developing new varieties for rainfed areas or genetically resistant to disease, even if yields are not as spectacularly high as the irrigated chemical-dependent varieties of today, can be a major improvement. Building on local knowledge can further the potential for a self-reliant process of technological change. The cropping systems programme of the International Rice Research Institute has found

many traditional practices of small farmers in Java that show remarkable productivity. Corn-soybean or corn-rice intercropping has been found to be 30 to 60 per cent more productive than monocultures as well as efficient in suppressing weeds. Traditional inter-cropping of peanuts with corn lowers pest damage. The programme has suggested many small improvements to existing practices, once it understood the significance and value of the technologies in use, rather than advocating a massive switch to laboratory-derived cropping methods.^{39/}

83. The advantages of the Green Revolution technologies can be summarized briefly: Yield increases (especially for wheat) to double that of traditional varieties; shorter cropping cycles enabling the rice farmer to economize on water, and for both wheat and rice, the amount of water per unit of land is decreased; shorter cycles allowing multiple cropping so land is economized; multiple cropping increases the demand for labour per unit of land and thus farm employment (unless mechanization cancels out the effect); scale-neutrality (because of the divisibility of inputs of seeds, fertilizer, pesticides, water) allows the technology to be easily disseminated to large and small farmers alike.

84. The switch to HYVs dramatizes the potential relationship between technology and the structure of the society and the economy. Considerable evidence exists that rural income inequalities have been growing in the period since the new technologies were introduced, that land concentration and landlessness have been on the increase, that unemployment and the living conditions of the rural poor have deteriorated in many areas. Considerable research has gone into analyzing whether and to what extent the new technologies have been responsible for these trends, and how much is due to other factors such as population growth, government policies, market imperfections and structural conditions. There are no clear, agreed answers as yet, but certain common conclusions emerge, one of which is renewed focus on poverty-oriented rural development.

85 The poor, who typically have restricted access to credit, technical knowledge and the material means of production, are unable to risk as much or to innovate as easily as those with more land and capital. If governments do little to the contrary, then the largest, most prosperous and educated farmers tend to innovate first and the middle-sized farmers imitate them. The most deprived groups will follow only after a considerable time lag, unless the governments act on their behalf.

86. Ownership of land provides the incentive for investment and is the main asset which determines the credit-worthiness of clients. Liquidity is essential for the purchase of marketed inputs and enables the farmer to time his sales and purchases and to take risks. Literacy gives the farmer access to information on the new technology as well as improved access to government services and institutionalized credit. In other words, although the technologies in themselves may be scale-neutral, the institutions with which farmers have to deal to make use of them are not. The new technologies have, therefore, been termed "landlord-biased". As government have been concerned primarily with raising total agricultural output, they have favoured such

landlord-biased technical change. It has been amply documented that it is easier to deal administratively with a small number of large farmers than with a host of small, dispersed cultivators. Officials also tend to recognize the social and economic status commanded by big cultivators in their local community, linked as they frequently are to them by kin and caste. Extension workers are given targets to fulfil, such as areas covered by HYVs and for fertilizers applied, which are easier to satisfy by persuading a few large cultivators. "Betting on the strong" has been a convenient policy. Instead, "betting on the poor" must become a productive and winning proposition.

87. Above all, increased need for credit has caused the greatest changes, both in incorporating peasants into the commercial economy as well as widening disparities between those who have ready access to cheap institutional credit and those who have to seek high-cost informal credit. (Evidence from a study in Central Java shows that poor families who already had large debts did not take advantage of the credit available from government sources, being concerned about becoming even more vulnerable to indebtedness). Pearse talks of a "livelihood threshold" or "farm size which makes possible the production of family needs in calories, plus a further 50 per cent to be used or sold to purchase supplementary foods and other essentials; successful adoption of new technology is not likely to become general until farms surpass this threshold by several degrees" 40/.

88. Rising pressure on land and growth in population (provided there is no corresponding rise in non-agricultural employment opportunities) throw peasants and landless labour increasingly at the mercy of land-owning classes for employment. Their position is even more vulnerable if the institutional setting denies them political influence to organize for bargaining purposes.

89. There has been much debate concerning the employment effects of the new technology. Labour is required to perform the more complicated husbandry practices. Increased harvest volumes require more manpower and more transport per hectare. The rise in cropping intensity to two or three crops per year increases the amount of labour required. Although irrigation might displace some labour used in traditional systems, its net effect is to increase labour use through farming intensity. However, use of the tractor for land preparation, harvesting, threshing and transport, roughly reduces the labour requirement per crop to the same extent that the new technology increases it. In particular, the combine-harvester, used in the more developed areas of Latin America, drastically reduces employment opportunities. (Despite these effects, most governments provide subsidies for mechanization through over-valued exchange rates, foreign exchange concessions, import licensing and credit policy.)

90. Perhaps the most vivid effect associated with the application of the new technology has been increasing disparities between regions in the same country. Those most favoured initially with good soil and irrigation facilities have benefitted the most from the new varieties and from government subsidies and services, further widening the disparity with less favoured regions.

91. New agricultural technologies should be designed to meet the requirements and conditions of the rural poor. ^{41/} Chambers believes that it is possible to specify the characteristics of a desirable rural environment (viz., higher productivity greater employment opportunities throughout the year, and equity in the distribution of benefits) and then plan the research and development that would produce the appropriate technologies. ^{41a/} More generally, technologies for rural development (not only agriculture should meet the four propositions advanced by Schumacher: that workplaces have to be created in the areas where people are living now, and not primarily in metropolitan areas into which they tend to migrate; that those workplaces must be, on average, cheap enough so that they can be created in large numbers without this calling for an unattainable level of capital formation and imports; that the production methods employed must be relatively simple so that the demands for high skills are minimized, not only in the production process itself but also in matters of organization, raw material supply, financing and marketing; that production should be mainly from local materials and mainly for local use.
92. This calls for planning technology to meet defined development objectives, not introducing it through the normal functioning of the market within existing social structures, as has been the usual practice. Moreover, the correct decisions are not likely to be made at the level of the individual firm, facing private rather than social costs, which may find it profitable simply to use existing technologies, even when labour-saving and capital-intensive.
93. The new agricultural technologies are expansive in their utilization of non-renewable energy supplies, particularly fossil fuels, needed for the manufacture of chemical fertilizers and pesticides, as fuel for irrigation and power, and as fuel for agricultural machinery. Most of these supplies are imported for the majority of Third World countries and have been subject to sharp increases in their world price. The significance of fertilizer supplies is reflected in the estimate that 35 to 40 per cent of the incremental growth of agricultural output is attributable to fertilizers.
94. Meeting food demand with the HYV technologies is only possible when food prices continue to keep the technology profitable inspite of the rising cost of fuel and fuel-based agricultural inputs. The social and political costs of these pricing policies are already being felt widely throughout the Third World for the rural poor who are net buyers of foodgrain. Even the economic costs have become apparent in the paradox of rising stockpiles of food-grain in countries like India where large populations continue to suffer from calorie deficiencies, unable to afford the locally-available surplus at market prices.
95. Structural transformation would open up opportunities for technical development aimed at using rural resources for the benefit of the rural poor. Income redistribution would stimulate effective demand for locally-produced goods and services. The demand for light manufactures for mass

consumption such as clothing, furniture and utensils would receive a corresponding boost with positive effects on employment. The use of small agricultural machinery capable of manufacture in many Third World countries would also encourage technological development in industries deriving their impetus from agricultural growth. New agricultural technologies, including the HYVs, fertilizer, and even selective mechanization, could be introduced with the confidence that their impact on productivity would not be at the expense of equity. In short, whether technology is beneficial to rural development or causes increased suffering for the rural poor will be determined in large measure by the social structure within which the new technology is applied. 42/

Employment, Trade and Links between Agricultural and Industrial Development

96. If the active participation of the rural poor in their own development is a prime objective, it can only be through their employment in production. The opportunity to earn a living is the principal avenue for participation in the benefits of economic growth. It is also the socially most valuable means of improving income distribution, since by directly contributing to increased output, it can combine both equity and efficiency.

97. Employment is also considered a fundamental human right. Contributing to one's own livelihood, to the welfare of one's family and to society, through one's own labour is essential to self-respect and to self-reliance. It is, however, the link between work and earned incomes that has to be maintained; work will be rewarded by increased access to other resources, usually through enhanced purchasing power. All other basic needs are dependent on an adequate income provided through returns to employment. One may distinguish between three aspects of employment: (i) the income aspect - employment gives income to the employed (ii) the production aspect - employment yields an output and (iii) the recognition aspect - employment gives a person the recognition of being employed in something worth his while. 43/

98. Compared with historical unemployment rates of 3-7 per cent in the industrialized countries, most Third World countries have to deal with unemployment and underemployment rates in the range of 25-35 per cent. In the period 1960 - 1973, unemployment in the Third World is estimated to have grown at an average annual rate of 3 per cent, faster than the employment rate (2.0 per cent) or the growth of the labour force (2-3 per cent per annum). During this period the agricultural sector continued to absorb the highest proportion of new employment (one-third of net employment growth), although the share of agricultural employment in the total declined, especially in Latin America. If present trends continue to 1990, the absolute numbers of agricultural workers will continue to grow throughout the Third World although the share in total employment may drop from 65.5 per cent in 1960 to 45 per cent in 1980. The largest decline taking place in Latin America and the smallest in South Asia. These figures show the importance of the agricultural sector in the structure of employment. The disturbing feature of current trends is that the fastest growing sector in terms of

employment is that of service activities in commerce and construction, which act as a residual 'mop' for underemployment and unskilled urban labour, while manufacturing and industrial activities provide the lowest proportion of the new employment opportunities absorbing additions to the labour force as well as reducing present unemployment. There is likely to be a growing pool of under-utilized labour dispersed throughout the rural areas and in service activities, notably in the urban informal sector.

99. A major shift in the employment structure takes place as per capita incomes rise and technological change occurs. 44/ Specialization of functions and a growth in market dependence results in a proportionate decline in the contribution of the agricultural sector to national output and total employment with a corresponding rise of the manufacturing sector. Under these circumstances, growth in per capita product may be ascribed mainly to technological innovation together with improvements in organization, labour skills and managerial efficiency.

100. The relatively low productivity of the agricultural sector is evidenced by the fact that its share in national output is much lower than in the national labour force, particularly at the lower levels of per capita income. It is, however, the huge weight of agriculture in the labour force of Third World countries that governs the pace and pattern of development. Kuznets' data show that inter-sectoral productivity differentials narrow as per capita income rises, productivity in agriculture growing faster than in any other sector. Of the non-farm sectors, manufacturing shows the highest rate of productivity increase mainly as a result of rising capital-intensity. However, the areas with the lowest capital as well as skill requirements, being agriculture, trade and personal services, tend to absorb most new entrants to the labour force. Agriculture's predominant share of the country's labour force acts as a constraint to the commodity flow from agriculture to non-agriculture (thereby limiting the potential farm output surplus) while the low purchasing power of farmers limits the market for goods produced outside agriculture. The way in which farm income is distributed and spent also can influence the growth of different industries and services. A vicious circle can operate against agricultural development, particularly in large countries where the agricultural labour force exceeds 70 per cent of the total: Productivity increase depends on increasing cash inputs incorporating improved technologies, but the amount of cash income available to finance them is determined by the limited demand for food by the small non-farm population. At the same time, without the productivity increase, there will be insufficient surpluses of agricultural commodities to sustain the growth of non-farm sectors. The possibility of cash sales to export markets can be of major help to small countries facing this constraint of purchasing power. Import substitution in agricultural products can also provide a temporary stimulant if a considerable market demand for imports exists (as was the case in South-Asia over the last decade).

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101. With agriculture the residual employer, the rate of structural transformation or the time it takes to transfer labour from agriculture to higher productivity sectors, depends on (i) the initial weight of non-agricultural sectors in the total labour force; (ii) the rate of growth of the total labour force; and (iii) the rate of growth of non-farm employment. The structural transformation can thus be speeded up either by lowering the birth rate, or by increasing the growth rate of non-farm employment, or both. In several countries such as Egypt and Indonesia, structural transformation has been reversed in recent decades, as a result of the population growth rate exceeding that of non-farm employment. In others, such as Taiwan, the high rate of annual increase of non-farm employment, combined with a sharp reduction in the birth rate, led to a very rapid reduction in the share of the total labour force in agriculture. The 15-year lag between changes in birth rate and changes in the labour force make it highly likely, however, that countries with the bulk of their labour in agriculture (60-80 per cent) will have to absorb additional manpower in agriculture for many more years, i.e., before the absolute size of the farming population starts to go down. A sharp increase in the rate of growth of non-farm employment that would counteract the effect of the birth rate has not been found easy to achieve in most Third World countries.

102. In analyzing the links between agriculture and other sectors, the main categories of items purchased from other sectors consist of the current inputs and capital goods for production, and final consumer goods and services. In addition to these forward linkages to manufactured consumer goods and backward linkages to manufactured inputs such as farm equipment, fertilizers and pesticides, other linkages are derived from the processing, storage, transport and distribution of marketed farm produce. The ratio of consumption to production expenditures (the first two main categories mentioned) declines as the value of high technology inputs increases with using productivity. 45/

103. Whether agriculture rests on a large number of smallholdings or on a small number of largeholdings has a major effect on the strength and impact of the linkages with industry. If the labour force is used fully in a small-farmer development strategy, cultivation implements that are powered manually or by animal traction (steel plows, foot-pedal threshers, hand-powered winnowers) will be in demand instead of the tractors, fossil fuels and combine harvesters required for large-scale mechanized farming. Construction materials for housing and infrastructure will similarly vary. The derived demands in industry from the two types of strategy have very different implications for employment, import content, technical skills and investment.

104. Small-farmer agriculture will spend more on extra food purchases and services, which in turn benefits further agricultural growth and employment. As a result of a more equitable income distribution, the consumer demand is likely to be for goods that can be produced locally with little or no import

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content and with simple technology, such as textiles, cooking utensils, furniture, sandals, bricks and paint for house construction, bicycles, locally-made cigarettes, and transistor radios. ^{46/} Capital-labour ratios tend to be smaller for such items; value added per worker is low, mostly for wages; and production can take place in small-scale, decentralized units located in rural areas.

105. The technological choice in industry for producing the same goods has important employment effects. Capital-intensive production techniques from the developed countries applied to the Third World result in a slower growth of non-farm employment than would have been possible with more appropriate input combinations. Most industries, moreover, provide some room for less intensive application, if not in the core manufacturing process at least in ancillary activities such as receiving, moving of materials and packaging operations. ^{47/} Manual operations can substitute for conveyor belts, fork-lift trucks, labelling machines, etc. Even in the primary production process itself there is usually room for using second-hand machinery which requires a lower scale of output, lower servicing skills and less stringent operating conditions, although greater technical ingenuity and closer supervision of operations may be necessary. Products can also be varied so that, while meeting the same needs, the process itself may be quite different (e.g., cold process caustic soda soap instead of hot process emulsion soap). There are also examples of "process simplification" that copies imported machines in a way that uses local, cheaper materials, less skills and less quality-control (e.g., the slow-speed diesel engine produced in India and Pakistan).

The Need for Integrated Analysis

106. Rural life has been broken up into the sectors that form the basis for administrative compartmentalization and technical specialization. Whenever any activity or intervention for rural development is designed, the interlocking nature of these sectors should be considered in order to determine how the activity may be affected by conditions in other aspects of rural life (and which will therefore influence the design of the objectives, the plan of work, the resources to be used, and the assumptions on which the validity and feasibility of the activity rest) and how the activity affects aspects of rural life to which it does not directly address itself.

107. An agricultural extension project, for example, must be based on an understanding of the resource base of the farmers, their production and ecological systems. What are the technologies being used, what improvements would be worth exploring and what effects would they have if applied? Where would the new information come from and how would it be transmitted? There may be constraints in reaching the farmers because of their isolation, in communicating with them because of their educational levels or differences in dialect, in marketing output because of limited effective demand, storage facilities, transport and retail outlets. The new technologies may require an increased supply of labour for one particular crop. Is it available? How would it

affect other crops, farm and non-farm activities? Does their health permit the extra effort? How would it change the division of labour within the family, affect wages, the need to mechanize? How much more dependent would the farmers become on purchased inputs and on credit to finance them?

108. The analysis must also be based on an understanding of the nature of the intended beneficiary. Are they many or few, rich or poor, grouped or dispersed, settled or nomadic? How do they relate to each other, how do they co-operate with one another, how do they depend on each other? What are their local organizations and how do they function? What is their history, their experience of change? What are their habits, their customs, their ceremonies? To what do they aspire? Also, how do they differ among themselves? Who are the leaders? Who are the exploiters and the exploited, the patrons and the clients? How do they value power and strength, wealth and income, employment and leisure? What confers status or privilege? What are their social and family responsibilities? How do they treat individual initiative for private gain, for social improvement?

109. Many of the decisions and instruments that will determine the effectiveness of agricultural extension (or any other activity for rural development) are in the hands of the government. What are the government's objectives and what is the time-frame for their accomplishment? How does the government want production to take place, to be sold at what price and in what quantities? What terms of trade will it set, between farm and non-farm products? How will it supply the inputs and at what terms, with what credit? Which farmers will it support? Will it intervene in local power relationships? How does it want the benefits to be taxed, saved, invested, distributed? What personnel, technicians, local organizations will it work through? What links does it want established from the small farmer to the central government, marketing boards or export channels? What training programmes will it establish for extension workers, for farmers? How will it organize the research that will eventually supply information to the extension agents?

CHAPTER VII - PROGRAMME APPROACHES

I. Introduction

1. By taking the point of view that rural development is not simply a specific set of programmes and their component projects but encompasses all development efforts related to change in agrarian society, this report assumes that there is a wide spectrum of programme approaches to rural development. These can operate concurrently in the same locality, sometimes closely co-ordinated and sometimes overlapping or even conflicting with one another. Most of them sectorally reflect the vertical organizational pattern of government administration. All seek to influence the day-to-day actions of the population in such a way that the government is able to channel local energies and resources towards a more efficient realization of national development goals.
2. Agricultural development programmes may consist of functional service programmes, as in research, credit or extension; crop-based programmes which may be single commodity programmes on a national basis, or multi-crop programmes which try to maximize production in a specific geographic locality. They may concentrate on the problems of specific population groups, such as women or landless labourers. Others try to mobilize communal energies and resources through community development and self-help schemes, or create local organizations, such as co-operatives, to use government services more effectively. Related programmes approach land distribution problems through agrarian reform or ameliorate unemployment through public works or additional sources of non-farm employment. Other programme approaches may also try to improve particular aspects of rural life by developing and introducing new technologies and creating appropriate infrastructures, e.g., rural electrification, rural housing, roads and markets. Finally, there are the national development efforts in fields related to education and health (including communication, vocational training, literacy, family welfare, nutrition).
3. Some recent endeavours combine these mainly sectoral programmes in area-based multisectoral schemes, usually referred to as integrated rural development programmes. In some cases there are advantages to be gained from integrated programmes as a result of the mutually reinforcing characteristics of rural development problems. It must be recognized, nevertheless, that in many situations significant improvements in the conditions of the poor can be obtained from narrower-based interventions. Also, the fact that some programmes seek to increase output and income directly, while others pursue wider objectives, does not automatically make the former more important. The contribution of a particular programme can only be judged by its effect on the lives of rural people.

II. Agricultural Service Programmes

4. These programmes relate to the generation and dissemination of agricultural technology, the provision of inputs necessary to apply new techniques, and the storage, processing and marketing of resulting increases in production. Each of them is primarily aimed at improving agricultural production (quantity, quality,

market value increases and cost-reductions) and the success of any one of them is dependent on the performance of others in the group. To be accepted by farmers, research results must correspond to their needs, implying an extension service attuned to these needs and capable of transferring new skills and knowledge. Conversely, an extension service is severely handicapped in the absence of a flow of technically-sound, profitable innovations. Without easy access to technical inputs, marketing channels and the necessary credit, the success of both extension and research programmes is jeopardized.

5. This interdependence can be a major source of weakness, as each service programme is generally under the control of a separate government agency. Where a service agency is weak, special support could pay high dividends and form a legitimate focus for technical co-operation.

i) Agricultural Research Programmes

6. The basic objective of agricultural research programmes has traditionally been to provide improved crop varieties to increase overall production. Secondary aims relate to combating crop disease and pest problems. Livestock research in Third World countries has received less attention and has concentrated on feeding experiments, grazing management and crossing programmes to breed for climatic adaptation.

7. Crop research has centred on the selection, testing and bulking of superior varieties. Supplementary research attention has been given to: (a) yield experiments, fertilizer trials, planting dates, weeding intensity and timing, irrigation, spacing; (b) disease and pest control measures; (c) breeding and selection for secondary characteristics (disease resistance, cooking and keeping qualities, drought resistance, early vigour, etc.); (d) effects of alternative rotations, crop mixtures and husbandry methods on: soil structure and fertility, disease and pest build-up, labour needs, water needs, provision of food, cash flow, risk of crop failures;

8. Research programmes in many countries tend to suffer from a narrow focus on cash crops and from shortages of scientists and equipment. Moreover, the "ivory tower" attitudes of many scientists who are more interested in basic research, the results of which can be published in professional journals, isolates them from small farm realities and leads to prescriptions which do not meet peasant needs. Recommendations too frequently assume that profit maximization is uppermost in the farmers' minds, and the vital problems of subsistence, competing demands for labour and restricted access to inputs are ignored. The flexible labour force, mechanized operations, level fields, and carefully monitored inputs characteristic of research station conditions are in direct contrast to the small farm situation, causing scepticism among farmers. 1/ Research recommendations clash with the labour demand for other crops or result in the release of varieties unsuited to small farm conditions, as

with some of the hybrid rice varieties in Asia which did not grow fast enough to keep ahead of rapidly rising water under conditions of poor irrigation control.

9. The Puebla project in Mexico provides but one example of farmers' rejecting, for valid reasons, the advice of researchers. Planting densities for maize remained far below those recommended because of the farmers' uncertainty of obtaining fertilizer needs by planting time, fear of drought effects at high densities, and the wish to obtain large cobs as opposed to maximum grain yields.

10. When agricultural technology is developed under favourable conditions with virtually unrestricted inputs, the larger farmers whose conditions best approximate those of the research station, can best utilize the research recommendations. In order to reduce risks, smaller farmers tend to compromise on inputs (especially fertilizers), and in many cases traditional varieties would respond better to the inputs actually used. In an effort to adhere to husbandry recommendations under conditions of restricted cash and family labour resources, sacrifices may have to be made in other components of the cropping system. Even if these problems could be overcome, new technology generally demands changed labour patterns and a higher level of inputs. Pesticides are required for the improved new varieties, fertilizer to exploit their increased yield potential and the seed for hybrid varieties must be bought as that from the previous crop will not breed true. These changes represent a loss of control by the farm family over processes which affect their subsistence and survival, increased reliance on outside agencies, and use of technologies involving non-traditional tasks, skills and allocations of labour.

11. Agricultural research should be based on the actual resource situations and perceptions of farmers, and this means involving farmers in the research process. A clear understanding of the differing resource positions among farmers must accompany this change; an innovation which responds to the needs of a large farmer may be totally inapplicable by smaller farmers. The CGIAR-supported network of international research stations is moving toward this position by initiating studies of the socio-economic constraints to the introduction of new varieties, encouraging scientists to site some of their work in the villages and pay more attention to interactions within a farming system.

12. The Puebla project introduced several improved approaches in gathering socio-economic and physical data at the outset, together with information on local varieties and farming practices. The ecological diversity of the area and different risk factors were also taken into account when siting field trials and formulating recommendations. Two basic "packages" evolved, one for limited capital situations and another for "unlimited capital". Farmers were surveyed continuously but not actually involved in the planning. Recent work by Cornell University in Peru has taken this process one step further with an approach whereby the farmers' needs determine the basic research objectives and trials

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are carried out under actual farm situations by the farmers themselves.2/

ii) Agricultural Extension and Farmer Training Programmes

13. Government extension services control a network of agents, each of which is responsible for contacting up to several thousand farmers. Often, however, the extension worker, forced by lack of transport and need to show quick results, concentrates attention on a few dozen large farmers.

14. Farmer training courses are generally residential and therefore costly. For this reason, they are often confined to larger, progressive farmers or to farmers' leaders. The utility of classroom training, moreover, has been called into question because the skills needed for improved agriculture (e.g., fertilizer application, insecticide spraying, ox-ploughing) are best learned in the farmers' fields and others (e.g., spacing, better weeding, different planting dates) only involve adjustments to existing skills. Similarly, knowledge of pests and diseases and of soil conservation can be learned in village group meetings without the expense of residence facilities and specialized teachers.

15. Extension programmes have tended to concentrate on improving communication techniques. This emphasis on new methods for transferring old recommendations ignores the reasons for the reluctance of farmers to change their production methods. Overwhelmingly staffed by male extension services have failed to recognize the importance of women in food crop production in many countries. They have not thought in terms of the farm as a system where various activities are competing for scarce resources, viewing instead their work as simply persuading farmers to think in terms of maximizing the yield of whatever crop is the current target of national concern. Extension agents have yet to learn that peasants are rational within the limit of their knowledge and resources and that change depends on more than mere exhortation.

16. Extension agents have traditionally found it easier to work with the larger farmers who tend to be from a similar educational and social background as well as being more able to undertake the risks involved in applying new technology. Moreover, the technical innovations have been more suited to large farmers in involving the need for credit and the ability to hire labour or to mechanize certain operations. Smaller farmers, without these possibilities and with a greater interest in labour-intensive, low-risk means of obtaining subsistence needs, are not in a position to benefit.

17. Unrealistic advice based upon a limited appreciation of actual problems by extension and research services could be improved by creating a structure whereby a contact farmer chosen by the community becomes involved. He would be a communications link with credibility in the local community. He would broaden the reach of the extension worker and force him to perform a task which would be monitored.

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18. The extension programme of the Mennonite Central Committee (MCC) in northern Haiti utilizes local farmers groups together with well-supervised extension agents from the locality who constantly receive in-service training. This combination of training and communal participation could form the basis of more effective national programmes.

iii) Agricultural Credit Programmes

19. Institutional credit is viewed as a necessary adjunct to efforts to increase agricultural production on the assumption that: Farmers need credit to take advantage of technological opportunities for increasing production; the new technology will be adopted if credit is received; the necessary credit is not available from private sources. However, recent studies suggest that these assumptions are not valid in many cases.

20. Credit by itself can grow nothing. It must purchase suitable technological inputs which must be transformed into agricultural products and marketed. Whether this happens or not depends upon technology, markets, infrastructure, information and attitudes. Many studies indicate that most credit programmes mainly benefit the larger farmers. IBRD data reveals, for instance, that the few farmers in Bangladesh owning more than three acres obtained more than 80% of institutional credit; in Tunisia only 10% of the farmers qualify for such credit; in Bolivia only 3 1/2% of the total goes to the smaller peasants (campesinos).

21. Eligibility criteria are a major reason for this, as most credit programmes insist on land titles as collateral. Also, the better connections and greater influence of richer farmers lead to a near monopoly of the restricted supplies of credit. One way of increasing credit supply is by increasing interest rates above the current real (taking inflation into account) rates of around 3% normally charged to nearer 20%, which would represent the cost of lending to small farmers but would still be far below the rates charged by private money-lenders.

22. Distribution channels tend to be cumbersome, bureaucratic, and run by urban, commercially-oriented people attempting to deal with the behaviour of rural, traditionally-oriented borrowers.

23. Although credit programmes tend to reinforce economic and social disparities, they continue to receive large amounts of external aid. During the period 1970-74 they accounted for 56% of all IBRD lending to agriculture. One attraction to donors is that large amounts of aid can be disbursed rapidly to state banks and another is that donors feel able to offer relevant banking expertise. Until the weaknesses at the community level which exclude the poorer elements of society from benefitting from most credit schemes are rectified, injections of credit for agricultural production purposes will probably continue to bypass those members of rural communities most in need.

24. Innovative programmes are being evolved to attack some of these problems described above. USAID has suggested a credit programme with a 26% interest rate in Bangladesh. Other programmes are concentrating on mobilizing local savings, often in conjunction with a crop or livestock insurance element. Some are beginning to concentrate more on the economic and social benefits of credit injection rather than continuing to be obsessed with default rates. Others are placing responsibility on local groups and cutting the cost of administration by turning purely supervisory services into mainly technical advisory services. Good repayment rates are highly correlated with profitable innovations and with the degree of continuing credit need.^{3/} This need is felt most keenly in the sphere of household and family expenditure, and some programmes have dropped the distinction between production and consumption purposes. The experience of Ivory Coast since 1968 has been that default rates are lower than with most orthodox production credit programmes as people are anxious to keep out of the hands of the moneylenders.

iv) Agricultural Marketing Programmes

25. Traditionally, family food requirements were the main production objective of every farmer and storage and processing activities were entirely carried out by the farm family. Unplanned surpluses were retailed directly in local markets at retail prices and production inputs provided by family labour and communally held land.

26. This situation was changed mainly by the advent of export crops introduced in the colonial period and marketed through separate commercial channels. Rising urban populations and the drive for national self-sufficiency in food has subsequently shifted national attention to the need for food surpluses in rural areas. These food crop production programmes are faced with the conflicting need to offer attractive prices to growers and to keep urban consumer prices low. One solution has been to reduce marketing costs, focussing on efficient methods of bulking the production of large number of farmers, storage and on processing the purchased produce and developing least-cost distribution networks to retail outlets. These services had traditionally been provided by private traders, but the inherent suspicion of those traders by government bureaucrats and the fact that in many countries they belong to ethnic minorities, has given rise to alternative marketing channels promoted by government.

27. Unfortunately, government interventions have often failed to yield the hoped for results. The exploitation and domination which undoubtedly took place in some instances has sometimes been replaced by paternalism and incompetence in the form of inefficient state marketing boards and farmers organizations. Smaller farmers have no incentive to produce a surplus while larger farmers have continued to benefit from their own more efficient private channels.

28. Programmes to create State marketing channels have received considerable support from technical co-operation agencies despite widespread evidence that private channels are usually fairly efficient. Few governments have approached donors on the problem of marketing from a national policy viewpoint or attempted to co-ordinate the typically fragmented institutional arrangements. Assistance has concentrated instead on the marketing problems of distinct agricultural production programmes. Most short-term improvements can be expected from training of managers and accountants as well as educating group members with respect to their rights and responsibilities.

v) Agricultural Production Programmes

29. For increased agricultural production the following conditions are required: i) existence of clearly profitable production technology; ii) awareness of these opportunities among farmers and the knowledge and skills to implement them; iii) ability to acquire needed inputs on time and access to satisfactory market outlets. Unless the policy and institutional changes and infrastructural investments necessary to attain these conditions are made, or if government programmes are inefficient or favour the larger farmer, the majority will refuse to change their current systems. While they may not offer the same opportunities for growth, traditional systems have the advantage of being adapted to local conditions and providing reasonably predictable levels of income.

30. Comprehensive crop production programmes offer the prospect of relaxing production constraints in a co-ordinated manner. Most programmes designed to increase the production of a single crop or related group of crops have a national coverage limited only by the considerations of ecological limits. These national campaigns may start in a limited number of favoured areas in order to gain experience, bulk seed and train sufficient numbers of staff. These area components of national schemes differ, however, from agricultural area programmes planned specifically for a given locality. These often involve improvements to the whole farming system and are not meant to be replicated, but to answer the special problems of the area.

31. National crop programmes can range from minimum package approaches which depend on little more than extension and credit arrangements to fully comprehensive, longer-term programmes within which technological packages are developed while supporting services are being strengthened.

32. Minimum package programmes (MPP) offer a cheap way of reaching large numbers of farmers with a profitable innovation provided support services are in place. The IBRD-supported MPP in Ethiopia was designed to reach all farmers in the country with fertilizers and improved services. The MPP in Korea is concentrating on reaching 500,000 farm families with improved seeds and credit to bring about a 10 per cent increase in incomes over five years.

33. The USAID-supported wheat and maize programme in Nepal exemplifies a more comprehensive approach. It uses genetic material from international research centres, in particular CIMMYT in Mexico, to evolve new varieties which are locally adapted. In addition to the breeding component, the programme contains farm management and cropping systems specialists who determine farm-level constraints

and interpret farmers' needs with regard to plant and grain characteristics. Suitable marketing arrangements and price policies are being determined, and information flows improved by extension and training specialists.

34. Since in a comprehensive agricultural production programme the various programme components are often under the control of separate agencies, a suitable co-ordinating mechanism has to be constructed. The Costa Rican grains programme, which claims to have doubled the national production of rice, maize and beans in five years, had the active support and interest of the President of the country. Because of this support a National Farm Council was able to co-ordinate the activities of five separate agencies concerned respectively with research and extension, guaranteed prices, seed and fertilizer supply, storage facilities, credit, State-owned land and crop insurance.

35. The core of any commodity programme is the technological package (seed, fertilizer, pesticides and water for irrigated crops) plus the accompanying input supply and marketing channels. Defects in this aspect of the programme explain most of the failures. A recent study of 36 projects by Development Alternatives Inc., revealed that out of the 51 technological packages and support channels involved, fully 31 were found to be inadequate. It was further noted that, with the exception of wetland rice projects, the preferred package selected by farmers always retained elements of traditional methods.

36. For the past decade the most important technological package in agriculture has been the seed-fertilizer-irrigation combination involving short-strawed, quick-maturing, high-yielding varieties of wheat and rice (HYVs). The main production effect comes from the increased intensity of land use made possible by the short maturation period and insensitivity to day-length of the HYVs (e.g., 5 rice crops are possible in 2 years). About one-third of the total rice area is now under HYVs. India has over half of its wheat area sown to HYVs and the position in the Philippines is similar with regard to rice.

37. The developmental impact of comprehensive crop production programmes has not been wholly positive even where production targets were exceeded. It has led to some countries becoming excessively reliant on the world price of one or two export crops. For example, in Senegal the success of the groundnut programme led to monocropping and subsequent soil erosion together with a growing need to import cereals. Other programmes led to the emergence of relatively wealthy areas within countries, e.g., tea in the Kenya Highlands, the robusta coffee areas in Southern Uganda, the cotton and soya growing Santa Cruz region of Bolivia, the northern irrigated cereals area of Tunisia. These areas have drawn cheap labour from less well-endowed regions and generally benefitted from disproportional amounts of government expenditures.

38. In assessing the development impact of the comprehensive production programmes involving HYVs, caution must be exercised. The phenomenon is relatively recent. Also, institutional and environmental conditions vary greatly. For example, Javanese rice farming is twice as labour intensive as that in the Philippines, and Thai farmers obtain lower yields on their poorly-weeded farms but higher returns to their labour than do the Javanese on their tiny, immaculate plots. Even within a single locality conditions may vary greatly between villages.

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39. The current consensus on the impact on equity of such programmes is well reflected in the Note by the Administrator of UNDP preceding the summary of the conclusions of the UNRISD study which states:

"In analyzing the social and economic problems that have been associated with the spread of the new technology so far -- it is important to bear in mind that they are not inherent in the technology as such. Rather, they are the consequences of social imbalances and economic disparities that already exist, and are largely due to the fact that social policy and reform have not kept pace with the spread of the new technology."

40. The evidence concerning the impact on employment is mixed. HYVs increase labour demand unless all operations including harvesting are mechanized. This is an unlikely occurrence in most areas where fields are small and sometimes terraced, but it has occurred in parts of Latin America with resulting unemployment. The impact on self-reliance is also mixed. Production gains increase national self-reliance by reducing food imports but can lead to national surpluses (produced on larger farms) co-existing with ineffective demand and continuing malnutrition.

41. Most donor inputs to national crop programmes have involved assistance in designing and implementing pilot programmes as in the Puebla scheme or in technical co-operation to develop improved technologies. The most important innovation has been a systems approach which ensures systematic consideration of all operative constraints to increased production. Several programmes are now operated in this way, but changes which will minimize equity distortions have not yet been seriously considered.

vi) Area Based Agricultural Production Programmes

42. These programmes focus on improving the agricultural system in a particular locality. Thus, they differ from such programmes as the IADP in India which focussed on cereal production in certain areas as an initial step in a national programme, or from the Puebla pilot project which was planned as the first phase of a comprehensive Mexican maize programme. Most irrigation schemes, river basin developments and watershed protection programmes could be placed in this category. Although their precise objectives may differ, their emphasis is upon the unique problems of the locality rather than upon evolving approaches for nationwide application. Admittedly, certain elements of such programmes might be widely replicated, but the application of solutions to the special problems of the area is at the core of this approach.

43. Most programmes attempt to deal comprehensively with the full complexity of agricultural development within the circumscribed area. They take account of the special characteristics of the locality as well as the important variations within it. Implementation problems are reduced if boundaries are chosen to ensure a similar ecological environment, homogenous ethnic and cultural characteristics, and conform to established administrative boundaries.

44. The approach basically entails the same components and factors as those involved in national crop programmes, usually accompanied by a greater concentration on infrastructural improvement. In addition, more attention is paid to crop

interactions and resource allocations within the overall farming system. The food and cash needs of the farm family throughout the year generally receive greater attention. Accordingly, agricultural development is regarded as more than achieving aggregate production targets for selected commodities.

45. The concentration of resources made possible by the area approach can result in rapid change and the restriction in area reduces co-ordination problems at the field level between different governmental agencies. On the other hand, concentration of resources can mean the neglect of other areas, and better field level co-ordination may be offset by poorer links with the central ministries. Many programmes have been criticized on the grounds of cost in relation to the number of beneficiaries as there is a tendency to saturate them with handpicked personnel in order to ensure that objectives are obtained. This happens particularly where donors encourage approaches which are overly ambitious in terms of national resources. The Lilongwe Land Development Programme (LLDP) in Malawi may be facing this difficulty since project specialists have still not been withdrawn after 10 years of activities.

46. The poor vertical links to the centre referred to above result in many area programmes being isolated and subjected to decisions which hamper their operations, e.g., frequent staff transfers, refusal to allow suitable incentive payments in remote and difficult localities, price policy changes and slow release of budgeted funds. In order to counter these effects, there is a tendency on the part of donor agencies to attempt to insulate their activities by creating parallel institutional structures funded directly and generously. This device is understandable, but it leads to demoralization on the part of regular government personnel left to suffer the normal bureaucratic frustrations and aware of former colleagues working under much better conditions. In addition, this insulation can only be temporary as once donor inputs are withdrawn government is expected to take over the somewhat artificial structures created.

47. A further criticism of area specific agricultural production programme stems from exaggerated expectations. Instead of being a means of attacking the unique problems of a given locality, they claim to be a pilot approach for later widespread application. Thus, two seemingly conflicting claims are presented: that the area approach is necessary because agricultural development problems are specific to the area; and that an area scheme is evolving a model for replication on a wider scale. In fact the pilot benefit is generally over-played and should be restricted mainly to cases where the area activities form the first part of a centrally-planned and budgeted national approach. The experience is seldom replicated unless there is a firm commitment to such an extension at the outset. Of course, successful components of an area programme, such as technical packages, training methodologies or communications techniques, could be taken and adapted to similar situations.

48. The impact of the majority of programmes is difficult to measure because of the absence of suitable baseline surveys. However, an examination of a number of programmes reveals weaknesses and difficulties. There has been lack of success in stimulating local participation in the planning and implementation of programmes. Generally, small farmers are not involved in decision-making related to project implementation and in the commitment of resources in the form of money and labour.

49. The history of such area programmes as CADU in Ethiopia and Comilla in Bangladesh has illustrated the difficulty of avoiding most programme benefits flowing to larger farmers. The existing tenure situation in the CADU area was perceived by the donor agency as a major constraint to broad-based development, but a promised reform was not carried out and the programme failed in its aim of improving the relative position of small cultivators and tenants, and left the local holders of political and economic power stronger than before.

50. One conclusion based on the CADU experience is that planners must not lose sight of two basic development considerations: that the rural social system is inseparable from the larger setting of the central society of which it is a part; and commitment by the centre to all dimensions of change is essential to the process of social mobilization and transformation at the rural level.

51. The Comilla programme was carefully phased and closely monitored, but its success led to a rapid expansion which led to a deterioration in the quality of administration and subsequent political distortions and local control by elite interests. The UNRISD study of the impact of HYVs encapsulated the basic equity problem faced by all agricultural production schemes in stating:

"Small cultivators lacked the time, influence and social affinities possessed by the larger proprietors which made it possible for the latter to be in touch with government programmes and facilities and receptive to government information. Thus, peasants may find themselves competitors for credit or irrigation facilities with agriculturalists who have city houses and political connections; poor villagers may have to compete for institutional credit with the local élite who make up the village committees which allocate the credit; illiterate, ill-clad cultivators must argue their case in town offices with status-conscious officials. Furthermore, the small cultivators were frequently the dependents of the members of the local élites for consumption credit, access to water, use of equipment and facilities, and even for contact with the rural development bureaucracy."

52. Programmes aiming at communal participation must be prepared to win local commitment through patient contact and discussion over an extended period. The approach must incorporate an understanding by all concerned that development problems are socio-economic as well as technical and absolutely require an intimate knowledge of the local situation. Based on experience of area programmes in Africa, ^{4/} Uma Lele (1973) has cautioned against excessive time-lags involved in insistence on comprehensive, high quality data before starting action and has advocated an approach of "learning by doing" after a short period of orientation and feasibility work. This type of approach, based upon raising the awareness and organizational capacity of the local community, is in sharp contrast to the

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majority of programmes assisted by external sources which place a heavy emphasis on infrastructural improvements and technology directly applied before adaptation.

53. Specialized area schemes such as irrigation and watershed protection tend to fail to comprehend the perceptions and problems of local inhabitants because these projects are generally dominated by technical specialists. This has led in many cases to "over-design", stemming from a desire to produce the "best" technical solutions possible. For example, irrigation works designed and built by engineers in the Helmand Valley of Afghanistan achieved engineering standards of excellence but failed to solve problems of local distribution of water to farmers recently resettled from a nomadic life. One IBRD economist concluded after a review of 50 irrigation projects that in no case was the coverage of agricultural, economic and administrative aspects adequate, due to a preoccupation with engineering details. Two other experienced irrigation personnel drew attention to the common failure to stimulate participation and institute measures to increase self-reliance that "in most instances agencies have attempted to overlay a traditional culture with an extremely complex system or systems that are little understood by traditional cultivators -- it is somebody else's fault when water does not arrive in proper amounts and in a timely fashion and, furthermore, they feel helpless to do anything about it". The high costs of managing and maintaining such schemes and their imposition from above arouse a passivity among the area's inhabitants which largely immunize them from "second tries at progress".

54. Another source of improvement is to adapt the technological component of the programme over an adequate period. The Gezira scheme in the Sudan was based upon many years of local experiments in irrigated cotton production whereas the well-known post-war "Government Scheme" at Mokwa in Tanzania suffered mainly by trying to gain time by cutting out the experimental and data-building stage of the programme. More recently, 5/ Uma Lele (1975) concluded, on the basis of experience of schemes in several parts of Africa that, where considerable efforts had been made to adapt technology to suit small farm conditions, as in KTDA in Kenya, the response of small farmers had been truly dramatic".

vii) Land Reform and Settlement Programmes

55. This broad category of programmes involves a process of re-adjustment of rural families to changed circumstances, either by legislative reforms or as a result of planned or spontaneous movement of people to previously uncultivated tracts of land. Each entails basic decisions about holding size, new service organization and large-scale training. In the case of land reform, problems arise from changes in the existing social structure to a more egalitarian situation, whereas with settlement, the challenge is to build a cohesive society from the often disparate family groups which are grouped within the settlement zone.

Land Reform Programmes

56. Specific objectives vary considerably between programmes. Some programmes concentrate on legislating improvements in tenure conditions. More radical is the

legislation of actual land re-distribution. At the other end of the spectrum are programmes involving State seizure of land, with or without compensation.

57. Programmes stem from pressure caused by rapid population growth and increased awareness of disparities within the rural population; from technical arguments for higher productivity resulting from more equal land distribution and tenural arrangements which eliminate production disincentives; and from egalitarian motives leading to moves to re-distribute productive resources and break up traditional patterns of power.

58. Where governments are actively seeking to promote broad-based development farm size is crucial not because of economies or diseconomies of scale, but because land ownership in traditional societies is practically synonymous with the control of labour, wealth, social prestige and political power.

59. Several elements are essential in administering any comprehensive and extensive land reform programme:

i) Land Records and Evaluation

Land to be affected by the programme must be clearly identifiable with regard to boundaries, form of ownership and equality. Records in most countries are out of date and inaccurate yet up-dating through the medium of government services is at best slow and expensive. Given the political will, the task can be completed in this way as it was in Taiwan and South Korea, but by involving the local community the job will be cheaper and quicker. The local community has itself evolved the complex web of tenural and ownership relationships which commonly exist, and also works in intimate contact with the land. Many people therefore know its de facto boundaries to the nearest few centimetres as well as being aware of the relative productivity of existing holdings. Thus in a country like China, where the peasants were encouraged to play an active part in the reform programme, even the complexities of determining land quality (slope, aspect, soil quality, irrigation, etc.), can be overcome with speed and at minimal cost.

ii) Criteria and Procedures for Transfer of Ownership

To determine which land is involved in the programme, precise criteria must be formulated. Transfer procedures must be quick and direct, in order to minimize production losses. Arrangements for compensation must be decided in advance, and the requisite payment channels designated. Realignment of fields may be required before re-distribution, if smallholdings are to be created and arrangements to pool mechanized implements, storage facilities, etc., should be made.

iii) Training of Beneficiaries

It is important that record-keeping methods are taught at the earliest possible moment, particularly where the beneficiaries have been landless, or specialized farm labourers.

iv) Services

Alternative channels for credit, fertilizers and technical information as well as for marketing opportunities are necessary to meet the re-distribution programme. These services are geared, in most cases, to serving a relatively small number of large-scale farmers. In the case of credit, the dispossessed landowners may have previously been the main suppliers to tenants or sharecroppers. Unless new credit sources are made available, the old dependency pattern will remain unbroken, or, if traditional credit channels are removed, production will suffer, and beneficiaries may even be forced to sell their land.

60. A number of countries have experienced intermittent land reform efforts. Five-year plans are replete with targets, which, in the absence of the requisite political commitment, have done little more than to nibble at the edges of the problem. In one Asian country, despite the enormous amount of legislation and accompanying mass of documentation in the reports of committees, commissions, panels and working groups, little or no improvement has been achieved in the status of tenants and landless labourers. Attempts to reform tenancy conditions have foundered because of the lack of an effective mechanism of enforcement. Reform attempts, which rely on a gradual phasing, or, upon tenancy improvements are unlikely to succeed. Tenants may remain ignorant of their rights or be in too weak a position to insist upon them. Furthermore, the tenants frequently have to depend for credit and other necessities of life upon money-lenders and tradesmen, who belong to the landlord class. It is apparent that rent control, changes in sharecropping arrangements and other tenancy reforms, are virtually impossible to enforce without basic changes in the social structure; they may also lead to displacement of tenants, or to other reactions by landowners, which are detrimental to the poorer groups.

61. In Latin America, the grip of large landowners on credit channels, plus internal party conflicts, has been cited as the reason for one Government's five-year programme only obtaining small holdings for 25,000 families out of 7,500 expropriated farms. The successor Government came to power and in two years had expropriated 43 per cent of irrigated land, and 24 per cent of total rain-fed land, thus benefitting 75,000 campesino families.

62. In Peru, the country's first comprehensive land reform bill was signed in the early 1960's. Provisions were complex, exceptions were numerous, compensation was generous, staffing and programme financing was poor, and political opposition widespread, resulting in little land distribution. The military Government which came into power later, promised to accelerate the pace of Peruvian land reform, and passed a law introduced three fundamental innovations:

- i) creation of a special branch of the judiciary to deal with all land reform questions;
- ii) requirement of all landowners to reside on and work their properties directly;
- iii) all agricultural workers would henceforth participate in the management and profits of the farms on which they worked.

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63. In addition, a long list of specific "causes for expropriation" was added. By August 1973, over half the estates to be expropriated had been affected, six times as much land had been expropriated, and eleven times more adjudicated, than under all previous agrarian legislation.

64. These two reforms demonstrated the need for quick action to take advantage of the Government's power, and commitment, as well as the administrative organisation, which had been built during previous cautious attempts to change the agrarian structure. In each instance the expectations of the landless had already been raised by previous administrations and spontaneous land grabbing had begun, a phenomenon not yet experienced in Asia. In a sense Government had to move even faster than the landless simply to assert its authority and regain control over the situation. In a North African country, a major reform following independence had led to the expropriation of millions of hectares of the richest and best farmed land in the country, a price had to be paid in terms of production losses for the speed with which expropriation was carried out. In all three cases, but to differing extents, the factors causing production problems included loss of traditional credit sources, managerial problems arising from running large farm units by previously salaried workers who had to make production decisions for the first time, and a desperate shortage of qualified people to maintain accounts and labour records. There was also a tendency to resent the management advice of government-appointed farm directors, while at the same time demanding guaranteed earnings. These were to be calculated little different from salaries on units which became quasi-state farms. Land reform programmes cannot lead to permanent agrarian reform unless a range of agricultural support services, training opportunities, and infrastructural needs are rapidly provided in sufficient quantity. One other effect of the reforms was that workers residing on expropriated estates resisted the entry of other landless people in order to defend their new privileges. This phenomenon of improvement in the status of a poor group which is being resisted by groups, slightly better off, who perceive their living standards to be threatened, is common everywhere.

65. A careful balance is required in land reform programmes between the dangers of moving too quickly, so that the resulting chaos and production losses cause the government to fall, and moving too slowly, so that the reform is subverted and brought to a halt. Even where this balance is maintained, it is not always easy to retain the benefits of reform over a long period. Unless support programmes are specifically designed to maintain the position of the new smallholders, the polarization of benefits described elsewhere in this chapter will lead to a gradual selling of lands to richer, more successful farmers. This progress has been documented in Mexico where radical reform measures were increased several decades ago. Between 1930 and 1940 the proportion of the rural population represented by landless peasants declined from 68 to 36 per cent; almost a third of the rural population became ejidatarios on collective (village) land and the latifundia system was replaced by a large commercial sector. Since this period however, the percentage of landless was sharply increased, in the face of rapid population growth, and the concentration of land in private hands. This concentration has been catalysed by the success of HYVs for wheat, and policies which helped to channel credit to the larger commercial farmers, even though their yields are 12 per cent lower than on the ejidos, and only one-third of the yields on the minifundia.

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66. In Egypt, programmes legislated in 1951, 1961 and 1969 redistributed 13% of the cultivated area to around 9% of the rural population, and the numbers of landless initially fell. During the 1960s numbers again started climbing due to population pressure and the slowing down of reform measures. The reforms have concentrated on eliminating the very largest farmers, but have not prevented the growing concentration of land under the control of the medium and larger peasants.
67. Redistribution of wealth can be approached through such means as differential taxation, priority access to credit, subsidies for the under-privileged, and formation of special groups to receive better technical services. All these approaches are, however, slow and are extremely vulnerable to subversion or avoidance by more privileged groups. Moreover, they offer little help to the rural under-employed without access to land. Land reform programmes offer the most immediate and effective path to responding to the needs of the poor and landless by giving them access to a labour intensive, self-reliant means of production and subsistence. Effective examples of such programmes coincide with Governments which have a continuing commitment to basic social reform, and which are prepared to confront the interests of the richer and more powerful classes in areas. If gains are to be permanent, they must be seen in terms of their potential effects on agricultural employment and production, and as the first step of a basic government strategy for agrarian reform and social justice.
68. The developmental impact of land reform programmes varies according to: (a) the pattern of land distribution; (b) the extent to which auxiliary services are provided; (c) the identity of the beneficiaries; and (d) the extent of the initial dislocation and production loss. Too many reforms have stopped short of helping the smallest peasants and the rural landless. Analyses suggest that restrictive programmes such as those launched in Pakistan (1959 and 1972), Philippines (1972) and Thailand (1975) tend to favour the better-off sections of the rural community and could actually contribute to rural poverty. ^{6/} In Thailand the land reform laws are of very recent origin, exceptions made to the laws, e.g., personal cultivation, modern farming methods, projects to increase production, etc., offer a wide range of evasion mechanisms by the richer groups.
69. Improvements in land reform programmes depend more than anything else on the will and capacity of Governments to alter the pattern of highly structured, inequalities embedded in society. The factors governing governmental impact are well recognized and the degree to which land reform laws are actually carried out depend more on political commitment than institutional arrangements and organisational skill. More than in any other type of programme, land reform entails an immediate peak in technical and managerial requirements. When such a programme is initiated, it offers a greater challenge and opportunity to the UN system than any other type of call for technical co-operation.

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Land Settlement Programmes

70. Land settlement programmes depend on the existence of tracts of uncultivated land and generally involve the transfer of population from outside the locality or, the settlement of semi-nomadic communities on a part of the land used for grazing at given seasons of the year. As such they differ from those area development programmes which may involve resettlement of the existing population within the currently cultivated area (consolidation of scattered plots, improved layout for mechanization or irrigation; land reform). The promotion of permanent rotational agriculture by settling communities with traditional rights to a much larger area in which 'slash and burn', shifting cultivation is practised, may be regarded as an intermediate case.

71. Several objectives are pursued within land settlement programmes, although their relative importance differs in each one. Objectives may be summarized into four main categories:

- i) Relief of population pressure;
- ii) Exploitation of natural resources and regional development;
- iii) Protection of natural resources;
- iv) Ideological (related to cooperative farming and villagisation to facilitate communal organization and provision of social services).

The transmigration programme in Indonesia was originally viewed as a means of solving the problem of population pressures in Java, Bali and Madura, however the fact that annual migration has only been equivalent to a small percentage of the natural population increase in these areas has led to a reorientation of the programme towards a strategy for the economic development of the relatively underpopulated "outer islands" of Sumatra, Kalimantan and Sulawesi. The "New Lands" programme in Egypt is intended to exploit the irrigation potential of the Nile to increase agricultural production, to relieve the pressure of population in areas of Southern Egypt, to provide land for demobilized soldiers, and to settle nomadic populations. The protection of grazing lands and the desire to minimize the ravages of drought has led to settlement schemes involving communities of livestock graziers on restricted, irrigated areas as in Northern Kenya. Most settlement programmes in Latin America have aimed at increasing agricultural production by settling the unutilized areas of humid tropical forests. In contrast, the Ujaama programme in Tanzania had a basically ideological objective of creating cooperative production units based on regrouping scattered holdings into villages where social welfare facilities can be more easily provided.

In Upper Volta, efforts are now underway, based on the experience of the FAO-assisted Matourku project, to introduce settled rotational agriculture in place of traditional land intensive shifting cultivation methods.

72. Settlement may be spontaneous, semi-directed through state provision of penetration roads (often to attract large-scale mechanized farming operations or

large ranches), or fully directed with bureaucratic control over recruitment transfer of families, provision of housing and services, etc. This latter type of settlement is usually associated with smallholder farming. Such programmes are generally preceded by a survey and planning phase during which decisions are taken on the following issues:

- i) Selection of Settlers (Deprived groups, e.g., urban poor; young married couples; agricultural college graduates; ex-army settlers or whole communities from poorest rural areas);
- ii) Transportation and Training;
- iii) Degree of State provision of infrastructure (roads, water, irrigation, fencing, housing, stores, cleared land);
- iv) Settlement pattern and farm size (Village size and layout, market towns, siting of services and local markets, farm layout, etc.);
- v) Farming system and methods (land tenure, soil fertility, planting materials and seeds, mechanization, variety trials and production cooperatives);
- vi) Community organizations (Cooperatives, councils, self-help groups);
- vii) Provision and coordination of government services (health, education, extension advice, marketing and processing, etc.);
- viii) Relations with indigenous population (incorporation, compensation, re-location).

73. Many of the above elements also apply to so-called "integrated rural development" schemes (comprehensive area development) except that in the latter case most of them are already in place and must be modified rather than created de novo before being coordinated within a comprehensive plan.

74. Major problems arise because of such factors as remoteness, lack of infrastructure and links with markets, health hazards, poor soil fertility or poorly distributed rainfall. Solutions to some problems would involve large outlays in terms of the possible numbers of beneficiaries and entail a high opportunity cost in terms of benefits foregone through diversion of funds from more attractive investments. This dilemma is directly linked to the level of state services and infrastructure provided, as opposed to those created through individual and communal initiative. High costs per settled family are often linked with a top-down, paternalistic approach involving a crash programme and a search for quick technical solutions which neglect communal involvement, and the potential of self-help as a means of making maximum use of scarce government resources and

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services.^{7/} The Ujaama nation-wide resettlement programme in Tanzania was based on laudable development aims, but may have fallen into this sort of trap. Some communities have been grouped into villages whose sites have not been properly surveyed for such qualities as soil fertility and presence of potable water and the centrally planned settlement pattern and farm layout has made it difficult in many cases to reach cultivated areas in a short time or to obtain sufficient water for family purposes. It has been seen with land reform programmes, that such basic structural changes demand swift action, but there are costs if implemented before surveys, planning, staff training and mass participation.

75. Part of the experience of an unsuccessful Group Farming Programme in Africa during the 1960s was that settlers retained control over their previous holdings (which included some tree crops) claiming new land mainly in order to gain benefits from subsidized government clearing and tractor cultivation services, with the result that the settlement farming was grossly neglected when priority was given to the traditional farm and community. Part of the problem was the failure to develop a farming system which was profitable, maintained fertility and avoided labour peaks arising from operations such as cotton harvesting, which were not mechanized. Similar problems have been encountered through lack of fertility or poor market opportunities in several Latin American settlements ^{8/} through salinity problems in Egypt's "New lands" programme; through poor rainfall distribution as in the case of the Mokwa 'Groundnut Scheme' in postwar Tanganyika (now Tanzania) and through problems of traditional grazing rights as in the Matourku settlement in Upper Volta where herds belonging to semi-nomadic Fulani tribesmen prevent the establishment of sown pastures by the indigenous, settled agriculturists.

76. Settlement programmes have generally been more notable for their negative impact on sparse, indigenous populations than for their positive results in the poor areas which serve as a reservoir for settlers. In a few cases they have brought economic prosperity in the settled areas, e.g. the Santa Cruz region of Bolivia, but as in the case in Central Java, the partial removal of pressure from the altiplano may simply have served to prevent the necessary institutional measures and injections of resources going to overpopulated homelands. Some programmes have been criticized for drawing budgetary resources from the heavily populated delta area into newly irrigated areas with limited population absorption potential.

77. The developmental pattern within the settled community will depend on the initial equality in land distribution, suitable training schemes, fair access to production inputs, a sound land tenure system and vigorous communal institutions which will form a strong safeguard against such developments.

78. An analysis of 24 land development projects in Latin America led to the conclusion that directed settlement has been less successful than spontaneous settlement in terms of economic return, income generation and self-sustaining regional growth. The element identified as the key prerequisite for success

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was provision of highways. In many cases, however, it takes more than highways to attract significant numbers of settlers, but the less the state has interfered in the settlement process and the more it has concentrated on providing services demanded by colonists, the better the result has been in economic and social terms.

79. Improvements in State's sponsored programmes might be expected to arise from giving priority to settlement in those areas which are most fertile and closest to markets; this does not always happen, e.g., in Paraguay more effort is going into developing the Chacos than the much more fertile South-eastern areas. It has been found that adjustment is easier when migrants from the same communities are kept together, e.g., in the Indonesian Transmigration Programme, and where efforts are made immediately to build communal organizations to increase social cohesion and encourage communal participation in creating common facilities, e.g., a meeting hall or school. Obviously the ability to gain a greater income and enjoy better social facilities in comparison to the area from which migration took place will increase contentment.

Community and Group Programmes

80. This broad category of programmes is concerned with the organization of groups of rural people. Programmes may have a largely commercial function, as in the case of cooperative programmes; a mainly self-help approach through increasing the confidence of whole communities in their ability to improve their living conditions through their own efforts; or they may concentrate on giving assistance to specific groups of disadvantaged people. The organization and training component is of paramount importance, and the degree of decentralization of responsibility and authority to the level of the group is also a main issue. These programmes rely on technical and financial backing from existing government agencies and are vulnerable to the twin dangers of dependency, whereby communal resources and energies remain untapped, and lack government support, so that communal initiatives are frustrated and the community or group retreats into seeming apathy and genuine resentment and suspicion.

Rural Cooperative Programmes

a) Objectives

81. Cooperatives are the most common form of group organization in rural areas with the purpose of achieving a measure of economic integration among their members. Such integration is usually confined to the marketing and processing of surplus produce, although credit activities and the purchase of agricultural inputs may also be undertaken. Programmes differ in the importance given to the commercial objective of obtaining a larger share of the profits of production and marketing of agricultural outputs (handicrafts manufacturing and other types of service cooperatives have similar aims) or acting as a receiving structure for governmental and commercial services and inputs. The broader social objective of promoting a greater measure of equality in the countryside, together with participatory development and a greater measure of self-sufficiency, is also pursued in varying degrees. Most cooperators resent the frequent criticism of cooperative programmes stemming from their failure to bring about changes in the social structure and pattern of development, contending that the main objective of cooperatives is to

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provide small and medium-sized producers with better access to the means of production and productive techniques. Cooperative principles are primarily concerned with equity which implies rewards commensurate with contributions.

82. Where this interpretation of the role of the rural cooperatives is applied, they become a means of gaining commercial advantages from economies of scale and the greater bargaining power of a large group, serving as a receiving mechanism to contact large numbers of small farmers and as a channel for credit and agricultural inputs.

b) Characteristics and Problems

Most cooperatives programmes concentrate on:

- i) encouraging the creation of primary cooperatives; usually by means of pre-cooperative groups such as credit and savings societies or buying groups for seeds and fertilizer. More ambitious groups might start by marketing, storage and processing activities but these demand a great deal of initial government support;
- ii) educating cooperative members on their rights and duties. This is usually approached through functional literacy classes;
- iii) training managers, accountants, storekeepers, etc. in specialized operations;
- iv) integrating primary societies into district societies and these into regional federations;
- v) simplifying and adapting cumbersome legislation in order to improve its relevance.

83. Primary cooperatives which integrate vertically into federations can afford to hire specialist staff and can operate in a more self-reliant manner than non-federated village cooperatives. Strong district-level cooperatives in Korea and Uganda have around 16,000 members as opposed to the weaker village societies in Ceylon and India with around 160 members.

84. Marketing cooperatives enjoying the benefits of larger membership tend to be more successful than credit cooperatives where original members often act to limit membership, so as to retain the benefits of government support within a small group. The famous milk processing and marketing cooperatives of Gajarat owe their success to the access they offer to assured markets and concessionary inputs. The success of the cotton marketing societies in the same state has been ascribed to the fact that members join principally to improve their position when selling cotton and can obtain member's credit for planting the next season's crop only on the surety of returning cotton to the society. Commercial success has been facilitated in other cases by the award of monopoly powers to the cooperative movement as in the case of cotton in Uganda. Many national programmes have, however, fallen into the trap of paternalism and cooperative members have exchanged their dependence on merchants for dependence on bureaucrats.

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85. Rural cooperative programme experience would indicate that scale economies are bought largely at the price of a loss of group cohesion. Another problem of cooperatives, even where over-all commercial success is claimed, is that benefits tend to be apportioned according to status and power. After reviewing 40 case studies of individual cooperatives in Asia, Africa and Latin America it was concluded that, the existing structure of the community tends to be reproduced within the cooperative. The better-off control the communities and management and influence the nature and distribution of benefits. A successful example was the cooperative programme founded within the context of the Comilla experiment in 1959. The cooperative unit chosen was the village, and the cooperators involved were owner-operators and tenant farmers. One task of the cooperatives was to function as a vehicle for extension, education and for supplies and services. The most significant aspect, however, was to protect the peasant cooperators from the prevailing system of moneylending and trading.

86. The village cooperatives were supported by a Thana Association located at a Training and Development Centre where village cooperative managers, themselves peasants and chosen by their peers, met every week to learn basic business methods. A "model" farmer chosen by the cooperative village attended the Centre one day per week and acted as an extension agent whose skill was constantly upgraded.

87. After 10 years of development the Comilla cooperative system, with 301 village cooperatives and a membership of 11,673 had only 2% of loans overdue. The experiment was hailed as a success and expanded to a total of 2,360 village societies and a membership of 68,632. Although the larger farmers of Comilla were allowed to join the village societies, they at first refused to do so, and those who did were carefully monitored in order "that they should not be allowed to dominate, as they had dominated the old cooperatives". The combination of control from above (the Academy) and participation from below appeared to work and the common dilemma of paternalism versus self-reliance seemed on its way to being solved. Unfortunately, this success proved to be only temporary and the flaws in the Comilla model have materialized after rapid expansion of the programme. The approach, which worked under careful supervision, has failed to stand up to declining administrative standards. After an examination of the evidence of growing administrative difficulties and increased flow of credit to large farmers, it was concluded as unavoidable, that the Comilla societies would turn into instruments for reinforcing the distributional status quo in both the economic and the political sense.

c) Developmental Impact

88. Cooperatives can enable the normally passive and exploited sectors of the population to realize that something positive can be achieved through joint action. They can hardly be a panacea for all kinds of economic and social ills as they cannot influence the workings of the international trading system and they have also proved vulnerable to exploitation by privileged rural groups. It is in areas where social and economic differentiation are not strongly marked that the developmental impact of cooperatives is most positive. The commercial benefits of successful cooperatives are self-evident, but it is perhaps the increased self-confidence and self-reliance which they can bring to rural communities, together with the chance for many individuals to participate in one or another aspect of the

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work and business, which is more important. Thus the creation of such groups can have a positive developmental impact even where local entrepreneurs are judged to be performing efficiently.

d) Programme Improvements

89. The potential of cooperative programmes for increasing communal self-reliance must be offset by the need for government support. In people's minds the distinction between the Government and cooperatives can become blurred and the distrust and apathy which often characterize their relations with government may be extended to cooperatives. Paternalistic bureaucratic attitudes serve to reinforce these attitudes. More enlightened government programmes will concentrate on creating a favourable environment in which cooperatives can grow and become self-governing associations. This role may be limited to the maintenance of quality standards, punishment for fraudulent trade practices, and enforcement of accurate weights and measures; it may also include such activities as cooperative promotion, provision of training, remission of taxes, supply of credit and creation of cooperative monopolies (although this latter measure often leads to inefficiency and poorer service to members). Where government support extends to some form of participation in running cooperative affairs, there should be a built-in provision for phasing out these interventions together with arrangements for the necessary training and education to facilitate change. Government efforts should not simply substitute for local efforts, nor should cooperators expect to become a privileged minority dependent on permanent government subsidies and interventions.

90. Other improvements to cooperative programmes can stem from measures taken to prevent exploitation by dominant groups. These may range from education programmes, to removal of limitations on membership (e.g., land ownership conditions, recruitment of women and young members) or the creation of separate cooperatives for underprivileged sections of the community. It is unfair to expect cooperatives to bring about structural changes but unless these safeguards are successful, the very commercial success of a cooperative programme could worsen the relative position of the poorer members of society.

91. Finally programmes must allow for the fact that most "internal" causes of failure are largely related to the non-traditional nature of the modern cooperative form and the larger numbers of members involved. Unfortunately, most cooperative tasks are different from traditional collective tasks which are generally intermittent in nature and aimed at meeting collective needs rather than directly raising individual income levels. The modern cooperative can rarely achieve its economic aims while retaining traditional mechanisms of social cohesion; other forms of solidarity and discipline must therefore be evolved. Without efficient methods for exercising control, there is a near certainty of such abuses as uncontrolled spending, excessive provision of credit, embezzlement, favouritism, nepotism, and the capture of power by a few influential members for their own benefit.

92. The difference in character between traditional communal groups and cooperatives run as economically efficient, modernizing institutions cannot be stressed too strongly. Any attempts to initiate cooperatives must take account of the many previous experiences where traditional authority patterns have been

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destroyed without being replaced by efficient substitutes. Change must proceed cautiously and flexibly with any traditional groupings of benefit to the community as a whole being conserved and used where possible. New disciplines and group loyalties should be introduced through intensive educational and training effort.

Community Development Programmes

a) Objectives

93. The basic purpose of community development programmes is to draw the population into the process of guided change. It involves the recognition of the capacity of the individual and community, in cooperation with the government, to help themselves to improve their living conditions, as far as possible using local resources. The approach stresses self-reliance at the local level and also contains an element of nation building. Community development is based on two assumptions: i) populations constitute a major latent resource for development, and ii) integration of programmes operating at the community level will lead to more efficient development.

b) Characteristics and Problems

94. The Indian Community Development programme initiated in 1952 (around the same time in Pakistan and Philippines) illustrates the typical characteristics of the approach. Its stated objectives were to increase material well-being by building up the community and the individual in order that all would participate in village and national development. The basic model consisted of a salaried government agent living in the community in order to organize self-help groups, material and technical assistance and to act as a link between the state and the community. The ideal sequence of actions was envisaged as follows:

- i) Systematic community discussions on the subject of felt needs;
- ii) Planning of an initial self-help activity;
- iii) Implementation by interested community members;
- iv) Build-up of 'team spirit' and 'group sentiments' to the point of planning a programme of self-help actions backed by government assistance.

95. Under the aegis of a newly created Ministry of Community Development, which was supposed to coordinate the services of all other involved ministries, the districts of each state were divided into 100 village 'blocks' covering up to 100,000 people. A district team was formed from representatives of the participating ministries while lower-level teams worked at the block level under the authority of a Block Development Officer (BDO) employed by the Ministry of Community Development. The key local agent, the village level worker (VLW) was responsible for ten villages. The programme was thus a relatively low cost technical assistance and non-formal education effort aimed at harnessing the potential of rural communities by decentralizing the administrative structure and actively seeking local participation in the development process.

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96. The programme encountered many problems. Although most VLWs were from a rural background, their training tended to be strong in agriculture and weak in such matters as group organization and non-formal education. They spent much of their time in report writing, and their major effort went into "bricks and mortar" schemes such as community halls, school buildings, etc., which had the merit of being highly visible and made impressive statistics in reports. Imaginative educative efforts aimed at increasing awareness and local capacity for self-reliant development were not encouraged, or did not materialize principally because of the VLWs' weak training on the subject. VLWs were exhorted to be "friends, philosophers and guides" to village people despite the impossibility of working with every group without creating friction. As a result the VLW would usually gravitate to the richer and more powerful section of the village community. The programme disappointed the hopes of some idealists when it failed to alter village conditions: 'team spirit' is not a common commodity in most Indian villages. The 1971 UN report on the experience of several community development programmes during 1950 observed that in almost all countries studied, the inadequacy or total absence of basic social reforms had the consequence of restricting the benefits of development to a relatively small number of the population. Bypassed in the development process, there was little incentive for the population at large to become involved in community programmes, a vicious circle that adversely affected local development. Within this context, villagers were less forthcoming in volunteering for community public works programmes, which were increasingly viewed as benefitting only a select few.

c) Development Impact

97. The Indian Community Development Programme also provides an excellent example of the over-all development impact achieved by many similar programmes throughout the world. Despite certain physical achievements such as the completion of feeder roads and the erection of service buildings (e.g., veterinary clinics, primary schools) plus the spread of supporting services available to those who either could make use of them (animal owners, those with access to land) or could afford them (schools, medical centres), little fundamental change in the social structure or community relations was attained. Moreover, disappointments concerning the rate of agricultural growth created an atmosphere of disillusion with the community development approach, a reaction which was not entirely justified since suitable crop technologies had not been evolved at that point in time. Given this technological gap it was not realistic to expect an approach aimed mainly at organizing and educating people on development issues to catalyze rapid agricultural growth.

98. The ambitious objectives of the programme were not achieved as people did not respond as an entire community to implement plans which would confer differential benefit, given the skewed resource situation in most villages. Also the VLWs tended to anticipate the 'felt needs' of the community and decisions were rarely actually taken by the villagers. Nor were the VLWs adequately backed by financial resources in the case of those schemes which were eventually approved by the authorities. In other words the rhetoric concerning devolution of planning and responsibility was not translated into a decentralized authority with local control over financial resources. Thus an administrative structure was created which reached all the way from the centre to the village level, but it was not a dynamic system with authority residing in the places where it could be most

effective. As with the majority of community development programmes elsewhere over-all development impact was not readily apparent.

99. Nonetheless the United Nations report referred to previously while recognizing the limitations of the state to respond to the aspirations released by community development approaches, concluded on the basis of experience in many countries throughout the world that community development, with its emphasis on change, popular participation and leadership training, involved a dynamic interaction between the central government and the village. Though not everywhere successful in achieving this kind of relationship, community development has become an instrument for forging a more constructive role for government in development, helping to establish on the one hand, a better understanding between ruler and ruled within the village, and between central government and village authorities on the other.

d) Programme Improvements

100. Community development theoretically espouses communal participation, increased self-reliance and decentralized planning and as such would seem to contain many of the essential elements advocated as part of a sound rural development strategy. In practice, however, community development is variously dismissed as mere "do-goodism", a set of welfare activities, or a means of keeping rural people busy in their spare time. In order to improve its performance in helping the poorer elements of rural society in the absence of fundamental reforms involving resource and power redistribution, the community development approach must recognize the fragmented nature of most rural communities which generally consist of competing groups whose interests do not coincide. To expect that a common set of actions can be planned and implemented in a harmonious manner when the resultant flow of benefits will be highly unequal is to be quite unrealistic. It is necessary to try to identify projects, e.g., health clinic; with the potential of wide benefits and for those projects which help only a few, the people who gain must either work by themselves or pay others from their own pockets where extra help is needed. Where the activity is simply a matter of gaining or not gaining, this approach could be straightforward, but where advantages flow in varying degrees among different sections of the population, e.g., improving an irrigation network, the matter becomes complicated as the extent of benefits received and shares of total cost must be agreed upon.

101. Another problem which has limited the success of community development programmes relates to improved technical inputs. Many programmes such as that in India and the Andean Indian programme suffered from a lack of available technological innovations in others, such as the Vicos scheme in Peru, policy changes caused previously profitable technologies to fail, or promising innovations were carelessly applied.

102. Many community development services have attempted to acquire their own technical expertise because of liaison difficulties with other ministries and frustration with the lack of profitable and feasible technical innovations. This generally leads to duplication and confusion. If the community development programmes concentrated upon animation (e.g., raising awareness of what could be done with an existing resource situation) and education which would make rural people aware of available technical services and opportunities, the problem could

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eventually be solved through pressure for improved technical services coming from the community. A direct 'community to technical agent' link could work much more effectively than leaving the liaison initiative with the community development worker. This approach is certainly much better than the unrealistic aim of one ministry being responsible for all aspects of development - international, organizational and technical.

103. The community must have a clear idea of available government resources as well as being allocated some authority over these. To do otherwise is simply to initiate the elaboration of shopping lists without developing a sense of communal responsibility. Despite misgivings, experience with such initiatives as the Kabupaten programme in Indonesia has shown that such a delegation of authority leads to the development of responsible communities aware of the need to select sensible priorities in the face of limited resources.

104. A major improvement could be brought about by the political and economic education of the population which would engender a spirit of self-reliance instead of the prevailing attitude of dependence on the government. Few attempts have been made to educate people to understand the resource limitations of government and provide the people with the fundamental rationale for organizing their own resources. Instead, communal energy is directed toward attracting government actions to that particular community and failing this, there is a lapse into fatalistic waiting "for government to deliver". A programme which succeeded in bringing about a truly self-reliant attitude and which could improve the situation of social tensions and underlying conflict would be judged a great success without any short-term production gains being produced, as it would have established many of the conditions for production increases and material gains. To judge the success of such programme purely on terms of immediate production increases is to demand too much; and any such judgements can only be made after a fair maturation period.

Public Works, Emergency/Rehabilitation and Employment Programmes

a) Objectives

105. These programme have a close similarity of origins and aims. They derive from the public works and employment creation programmes common in Europe and the USA during the depression years of the 1930s. In countries of the Indian sub-continent the recurrence of drought and famine led to the enactment of famine 'codes' which laid down administrative and financial arrangements for creating employment through relief programmes. The basic aim of this group of programmes is to provide relief through temporary employment during emergencies arising from food shortages or economic depression caused by disasters or other adverse economic forces. It also applies during the ensuing period of rehabilitation and reconstruction. Subsidiary goals are asset creation and redistribution of wealth. Some programmes are designed to accord a heavier weighting to either one of these generally subsidiary objectives.

b) Characteristics and Problems

106. Programmes are generally characterized by the mass mobilization of people,

usually in infrastructural and public utility-type works, of an ad-hoc, short-term nature, outside the main-stream of activities carried out within the context of a country's development plan. Extra budgetary provision must therefore be made and often consists of significant aid, especially food aid. These programmes are often administered and executed by Ministries of Relief and Rehabilitation of Departments of Labour rather than the technical ministries from which they find it typically difficult to obtain technical support. Works performed tend to be uncoordinated and can be of limited, short-term benefit. In the absence of adequate technical and financial support, there is a strong tendency for activities with the highest labour to capital ratio to be selected. These activities are often regarded as palliative and short-term, rather than having any long-term structural significance in terms of building up and improving infrastructure. They can also be used as a means of political patronage.

107. The most common characteristic of countries where rural works have been effective is a high density of population. With the exception of Tunisia and Morocco, countries with national programmes are situated among the most crowded Third World countries, in particular those of South and South East Asia. In sparsely populated areas, typical of much of Africa, and the mid-East, population densities tend to be too low to operate programmes of this nature, as it is necessary to transport workers and provide them with food and housing at the work sites.

108. One example of a programme of this type in Asia was the "Drought Prone Areas Programme" in India, which had three distinct elements:

a) a very large, labour-intensive rural works element accounting for more than half of the planned investment, with substantial direct construction phase and indirect continuing employment potential;

b) a further reservoir of labour-intensive projects to be activated during emergency; and

c) certain agricultural and livestock programmes like improved dry farming practices, livestock and dairy development. Together, they sought to restore a proper ecological balance in the drought-prone districts, optimize the land and water resources situation, provide production stability and improve the overall employment and income prospects of the rural communities. Another example is the Bangladesh "Relief Works Programme for Land and Water Development" which provided employment for half a million workers through labour intensive, canal and embankment building and a rehabilitation programme designed to improve irrigation and drainage, as well as to provide food protection. Smaller road building and repairs and pond rehabilitation projects were also included. This programme was financed largely through WFP food supplies.

109. Some major constraints in the successful implementation of this group of programmes are:

a) inadequate preliminary planning and setting of objectives which are within the scope of resources available;

b) insufficient involvement of the community effected;

c) lack of co-ordination between governments ministries and departments, and with local government and community;

d) inadequate provision of: (i) administrative support, (ii) technical advice and supervision; (iii) tools and equipment for workers;

e) insufficient attention to the seasonal agricultural employment pattern;

f) inadequate incentives and poor arrangement of work groups, and supervision leading to loss in labour efficiency.

c) Development Impact

110. Unlike a basic reform programme, rural works programmes can in general be classified as moderate reform programmes, as they rarely redistribute resources in sufficient magnitude to alter relative positions on the income scale. On the one hand they are aimed at directly helping lower income groups in the short-term, but on the other, the capital works created could in some cases permanently increase income flows and land values for the richer groups.

4. Programme Improvements

111. A sense of self-reliance could be fostered by these programmes as they often involve whole communities and, in some cases, local project implementation committees. Similar decision-making groups (Bangladesh, Mexico, Sri Lanka) have been appointed consisting of representatives of the communities themselves. They could also result in the participation of women in work programmes for the first time, and of unemployed youth. In most cases, the opportunity is not taken as the work programmes are supervised from above as a short-term expediency to overcome a particular crisis and are administered through the local authority structure, thus substantiating privilege and elitism. Moreover in a number of countries workers are organized through labour contractors. Programmes could be used as the process for bringing about greater equity.

112. The opportunity could be taken of a disaster or emergency-like situation to begin to rectify the uneven distribution of wealth and power. This has rarely been consciously done, (witness the situation in rural Bangladesh after a succession of major disasters arising from cyclones, floods, drought and war). Effective action will require a much deeper national political commitment than is forthcoming in most countries.

113. At the organisational and operational level, improvements could be obtained (in the absence of an emergency) by adopting the following procedures:

a) before a public works programme is started general guidelines on needs which could be met, projects which could be considered and desirable forms of organisation, should be determined through a micro-survey of representative villages;

b) tentative programme outlines should be formulated (project types,

technology timing schedules etc.) and followed by a pilot programme.

114. On balance rural works are better performed as small programmes and it is generally better to allow substantial local discretion in project selection. Nevertheless, local construction projects will often require skills not available to local people and the use of simple standardized manuals is to be recommended. Such manuals can improve the quality of work by presenting basic techniques and procedures for a range of common projects. Much work is needed, however, to develop and adapt appropriate technologies which would both reduce the drudgery and burden of the manual labour involved in public works (an especially important consideration as undernourished people are often involved) and raise productivity and work quality.

Non-Formal Education Programmes

A. Objectives

115. Non-formal education programmes aim at creating organized, systematic educational and training opportunities outside of the formal schooling system. They are thus of potentially great importance to those excluded from the formal system because of age, poverty, parental indifference or lack of nearby formal educational facilities. These programmes form a range of separate educational activities but fall into two main categories: i) Basic education programmes, mainly represented by functional literary programmes concentrating on reading, writing, arithmetic and with some technical component. ii) Training elements of technical programmes, which may be viewed as constituting three main types:

a) Family improvement education (hygiene; nutrition, child care, family planning, etc.).

b) Institutional training (co-operative training, community development and organizational training).

c) Occupational education (vocational skills, extension services).

B. Characteristics and Problems

116. Since many aspects of the training elements of technical programmes are touched upon in other parts of the chapter, this part will concentrate on basic educational programmes. The major co-ordinated experience in this field was the Experimental World Literacy Programme (EWLP) launched by UNESCO in 1966 after the World Conference of Education Ministers on the Eradication of Illiteracy meeting in Teheran in 1965 had concluded that: rather than an end in itself literacy should be regarded as a way of preparing man for a social, civic and economic role that goes far beyond the limits of rudimentary literacy training consisting merely in the teaching of reading and writing. The very process of learning to read and write should be made an opportunity for acquiring information that can immediately be used to improve living standards, reading and writing should lead not only to elementary general knowledge but to training for work, increased productivity, greater participation in civil life and a better understanding of the surrounding world. Pilot projects and micro experiments were

pursued during the ensuing ten years and a joint UNESCO/UNDP assessment of the experience was published in 1976 based upon experience in Algeria, Ecuador, Ethiopia, Guinea, India, Iran, Madagascar, Mali, Sudan, Syria and Tanzania.

117. In discussing the motivations for EWLP it was observed that the altruistic rejection of the absolute growth in global illiteracy was fundamental, but that in the view of some analysts the motivation was not always to 'do something', but to appear to do something, i.e. to hide a deep determination to maintain the status quo behind a mask of superficial change. Whatever the balance of ethical altruism and self-interest on the part of those promoting such programmes the element of stewardship was very common; national administrators and international aid tended to do something to, and, - perhaps at best, - for illiterates.

118. The characteristics and purpose of EWLP varied with the country. In India functional literacy was seen as a supportive element to increased food production, whereas in Tanzania the goals were much wider; functional literacy was ultimately aimed at the development of the total citizen, not simply the citizen as a producer. This programme's specific objective included:

- a) Teaching illiterate men and women basic reading and writing, and solving simple problems of arithmetic, using as basic vocabularies the words employed in current agricultural and industrial practice.
- b) Helping them apply the new knowledge and skills to solve their basic economic and social problems.
- c) Preparing them for more efficient participation in the development of their village, region and country.
- d) Integrating the adult literacy and adult education programmes with the general agricultural and industrial development of the country.
- e) Providing the necessary reading materials, imparting the knowledge of community and personal hygiene, nutrition, child care, home economics, which would help improve family and community life, providing opportunity for a continuing education and avoiding relapse into illiteracy. Clearly, the concept of functional literacy fitted comfortably into the government's own development priorities, which were in turn shaped within a unique socialist ideological framework.

119. The major aspects of each programme relate:

- i) Curriculum (technical content political and social content);
- ii) Method of Instruction (participatory/directive; use of media; learning/project work, length of course, instructor; student ratio)
- iii) Materials (Teacher Instruction Sheets, Pre-and Post-literacy Training Materials, posters, films, etc.)
- iv) Instructions (Background, Training, Incentives, Remuneration, Inspection)

- v) Participants (Socio-Professional Status, Age Group, Sex, Knowledge level)
- vi) Administration and Organization (Ministries involved, degree of centralization, co-ordinating mechanism, financing)
- vii) Evaluation and Research (Baseline studies, Programme Support Studies, Development Impact Studies).

120. The major problems revealed by the assessment of the EWLP experience may be summarized as follows:

- i) The selective, intensive experimental nature of the EWLP as perceived by UNESCO conflicted with the primary goal in certain countries of raising mass consciousness. This also led to some countries rejecting intensive arrangements for evaluation when they were proposed.
- ii) The approach was perceived centrally and globally and national administrations were expected to relay the approach as a ready-made, technical package rather than to adapt it to the political aims and socio-cultural environment of the country. This caused resentment in several cases. Had the results of earlier mass literacy campaigns (e.g. Cuba) been considered by those planning EWLP a more flexible definition of functionality might have been considered.
- iii) Problems also occurred through lack of sensitivity to - and understanding of - adults, especially those from under-privileged groups, by the instructors used. In particular the background and training of regular teachers did not qualify them as part-time instructors. In terms of values and behaviour, they perhaps often aspire to enter the very white collar urban social structure that secretly scorns or openly exploits rural peasant illiterates.
- iv) The number of dropouts was high in most programmes. In Sudan the rate was 23 per cent to 95 per cent and in Ethiopia only one out of every eight persons enrolling reached the last stage. Expectation of quicker results seemed to be a major reason.

C. Development Impact

121. The literacy problem tackled by EWLP was seen as predominantly technical, partly because of the bias which permeated the First Development Decade where development was equated with greater GNP and was influenced by the short-cut syllogism - development is economic growth; economic growth is a technical process; therefore development is technical. The assessment of EWLP stresses that the problem is only partly technical, a broad multi-dimensional approach is needed and literacy programmes can only be fully functional if they accord importance to social, cultural and political change as well as economic growth. A few programmes did, for example: Algeria, Guinea and Tanzania viewed literacy as a means of enhancing popular participation in social and political life. However, it is evident that, although 75 per cent of learners were in this 15-34 age group and

more women enrolled than men, the participant who was deemed successful by the planners and evaluators of EWLP seemed to be:

- i) actively seeking information to help solve mainly personal problems generally posed in vocational terms;
- ii) preferring such activity to participation in formal community organizations;
- iii) taking advantage of the new literacy to open personal and savings accounts;
- iv) aspiring to reduce family size in exchange for the prospect of a higher material living standard.

122. The above criteria are best responded to by a programme with a narrowly economic interpretation of functionality, one which could have negative effects in terms of a broad concept of development, by stressing the economic gain to the individual by becoming literate and neglecting social consideration and group responsibilities. On the other hand the newly-literate individual will perceive more clearly than before the structural barriers to individual progress and this may lead to frustration and greater resentment. This could be the beginning of a changed attitude to the current authority and decision-making patterns, as in Mali, re-distribution of socio-political initiative has been reported in certain villages as a result of EWLP activities, and in Tanzania, farmers learning to read and write (have denounced) individuals who had cheated them by mis-weighing their crops when they brought them for sale.

123. The developmental impact of an education programme of this type will therefore depend upon the extent to which the newly-literate can understand and manipulate the external socio-economic processes and forces with which they come into contact.

Programme Improvements

124. The assessment of the EWLP indicated that the main motivation expected of participants by the planners and evaluators was individual self-interest. This motivation obviously must be present, but an approach which will also stimulate participants to help members of their community would be more consonant with a true rural development process.

125. Non-formal education of this type would go far beyond the technical approach to the acquisition of literacy skills and it would involve participation in the decision-making process at the village level in the course of which group interactions, problem-solving exercises involving local surveys, etc., would promote community integration. If this participation was then taken one step further to the point of actual community development actions involving contact with government agents and physical and financial commitments, then the dropout problem could be solved by group sanctions and the positive effects of enjoying material benefits. In this modified community development approach literacy is seen as one element of community action for development based upon knowledge and skill requirement and more efficient use of available government services: Just as

development is not only economic growth, so literacy -- and education more generally -- must aim above all to arouse in the individual a critical awareness of social reality, and to enable him or her to understand, master and transform his or her destiny.

126. Such a prescription, linked intrinsically with actual group planning, and implementation of development projects based largely on local resources could bring about a reversal of the top-down communicative flow so common in most countries and lead to development based on communal participation and increased self-reliance.

127. Based on the experience of programmes in a wide range of countries, key operational generalization and issues related to non-formal education programme improvements may be summarized as follows:

a) Planning and Preparatory Generalizations

- i) necessity of using knowledge and experience of villagers;
- ii) respect for cultural values, norms, religious and other practices of individuals and groups with and for whom changes of behaviour, attitudes and practices are being proposed;
- iii) use of indigenous organizations and leaders, so long as this does not conflict with the aim of helping the poorest groups, should be encouraged.

b) Operational Managerial Generalizations

- i) empathy and acceptance are not enough in development workers; they must be capable of soundly-based, demonstrable and practical advice.
- ii) usefulness of para-professionals in all fields;
- iii) changes must be seen in a holistic context, i.e. how they fit into the total lifestyle and priority needs of the individual, family and community;
- iv) need for supply availability and resources support for any projects to be implemented.

c) Planning and Operational Generalizations

- i) universal literacy is not essential as a prerequisite for the conduct of non-formal education activities but may be thought of as a 'vehicle' to get development messages across and to increase receptivity and learning ability;
- ii) communications methods to convey development messages are extremely important; more than one means is desirable and messages must be pertinent to needs and interests, well-timed, clear, persuasive and sustained;

iii) more attention must be given to the special educational problems of women and girls.

d) Issues in the Use of Non-formal Education Methods

- i) the formal system cannot be quickly attuned to the needs of the rural poor, yet this system has in many cases the only institutional resources and personnel, so that means must be found of utilizing these in non-formal approaches;
- ii) non-formal education needs more innovative methods of evaluation as mere participation does not indicate what effects 'exposure' has had on the abilities and development skills of participants;
- iii) replication or transfer of non-formal methods or components must be accompanied by specific analysis of its essential features to adapt them to a new culture and environment;
- iv) most non-formal education programmes are essentially pragmatic and functional - related as they are to elementary needs for food production, improved nutrition and health. It is argued by most practitioners that theory should be derived inductively from action programmes;
- v) what is known, and what needs to be known concerning non-formal education, is still in an elementary stage of formulation and a great deal of experimentation and adaptive research is needed to establish priorities, and to create useful designs for action.

Rural Health Programmes

A. Objectives

128. The programmes referred to in this section are concerned with raising health standards in rural communities primarily by means of using the energies and resources of the community together with the advice, guidance and services of trained volunteers, low-salaried paramedics with minimal training and traditional midwives and healers whose skills have been complemented by instruction in modern practices. The basic objectives of these programmes is to raise nutritional standards, provide clean drinking water, improve hygiene and sanitation and introduce simple prophylactic measures (e.g., vaccinations, anti-malarial drugs) which will drastically reduce disease incidence. The accent is upon improved health rather than treatment of the sick, but this group of programmes also aims to provide simple, low-cost treatment for a wide range of illnesses, treatment which is especially effective in reducing infant mortality.

B. Characteristics and Problems

129. The characteristics of an approach to low-cost medical services are reflected in the experience of Tanzania which has evolved its health policy within the tenets of the 1967 Arusha Declaration which called for, inter alia, over-all rural

development; the mobilization of all resources for the elimination of poverty, ignorance and disease and a contribution from the people (self-reliance) as an instrument for self-liberation and social development. Attention was drawn to the urban concentration of medical resources.

130. The basic unit in the system is the village health post which provides treatment for minor ailments plus first aid. As recently formed Ujaama villages grow in size the post is upgraded to a dispensary (one for every 9,000 of population) staffed by:

- i) A rural medical aid (3 years post-primary school training) qualified to give:
 - a) out-patient treatment of simple diseases;
 - b) initial treatment of serious illnesses pending referral to a rural health centre or hospital plus after-care services;
 - c) immunization and community health training.

- ii) A maternal and child health aid (18 months training) qualified to:
 - a) organize and run maternal health services including ante-natal and post-natal care;
 - b) conduct normal deliveries;
 - c) organize and conduct clinics for under-fives;
 - d) provide health education; and
 - e) participate in family and school health activities.

- iii) A health auxiliary concentrating mainly on the provision of general health education and promotion of better hygiene and sanitation practices. This trio of workers is supported by one or two village medical helpers selected by fellow villagers and given 3-6 months training at a district hospital.

131. Each 4-5 dispensaries are linked to a rural health centre with six maternity and eight holding beds. A medical assistant (2 years post-secondary training) is in charge of about eight supporting staff and the centre provides curative facilities more advanced than those of the dispensaries as well as a mobile health service. The health centre is the key to the current programme and the primary health worker described above form the backbone of the health service. Apart from these workers there are just over 500 fully qualified doctors in the whole country plus a smaller number of assistant medical officers whose functions are intermediate to that of a doctor and a medical assistant.

132. The programme emphasizes coverage of all people, rural and urban, focusses on disease prevention and is dependent on community involvement. Thus, in the

construction of a health centre, certain buildings such as kitchens and mortuaries are not provided for in the financial estimates as they are expected to be built on a self-help basis. In order to make people health conscious, mass health education campaigns, planned in collaboration with the Adult Education Directorate of the Ministry of Education, are reaching not only the literate but also the newly literate villagers; Tanzania was the largest EWLP scheme with written information on symptoms and prevention of common diseases. The project was launched in April 1973 with some 75,000 study groups and a population of 2 million took part. The group approach envisaged group action to bring about better health for the community. Radio broadcasts were used in addition to written materials to stimulate group discussions. A nutrition campaign organized along similar lines will be followed by an environmental sanitation campaign. Campaign costs are low (\$0.20 per participant) and several independent evaluations point to the success of the approach.

133. In Venezuela a similar programme to improve health service in rural areas was started in the early 1960s. Referred to as "simplified medicine", it relies on the use of peripheral health workers, locally selected, trained for 4 months in a district health centre and supervised during dispensary visits by regional supervisors who are either former instructors or specially-trained graduate nurses. Each dispensary has one health worker covering 500 to a few thousand people depending how scattered the population is. The basic components of the system are:

- a) elementary services for mothers and children, health education and environmental sanitation;
- b) first-aid and simple treatment;
- c) disease surveillance (e.g., malaria, tuberculosis).

The programme has developed over a 12-year period and by 1973 was working in over half of the country's regions.

134. Other programmes have gone beyond the simplification of health systems to cut costs and increase coverage of basic services, and are pursuing community-based efforts which attack the causes of ill-health directly through efforts to introduce family planning education. Such an approach recognizes that health is one strand of the whole of rural development whose interwoven elements must be viewed holistically and approached through the community.

135. The Central Java programme was started in one village during 1965 with a survey to collect baseline data and make personal contact. The community was persuaded to set up a village development committee which held periodic meetings where everyone was free to express an opinion. Providing guidance meant helping people to develop the will and the competence to manage their own affairs and, where necessary, helping in the technical implementation. Poor levels of food production were identified as the root cause of poor health and were attacked through a development team formed of community leaders and local officials from several disciplines working with the agricultural service. New seeds and fertilizers were introduced and the irrigation system improved through the medium of a food for work programme leading to a doubling of rice yields. At the same time nutrition education was given to women and girls and these activities led to

a sharp drop in infant mortality without other specific health service improvements. It was found that these changes caused a previously apathetic community to improve their housing conditions. A later scheme in another village introduced communal goat keeping, fishponds and new grass strains as well as improving village roads on a self-help basis. By the end of 1972 this essentially community development approach, using health as an "entry point", had covered 50 villages and a population of 150,000 people and had introduced a form of health insurance plus training programmes in community health involving local people in surveys and analyses of health conditions.

136. A similar community-based, integrated approach to improved health conditions in the Savar Thana in Bangladesh based on paramedics includes family planning activities. At the same time the programme, run by three Bengali doctors, is attempting to improve food production, raise its social status and earning capacity of women, launch functional education programmes and create local institutional structures for greater local control over all these efforts.

C. Developmental Impact

137. When malnutrition is attacked through attempts to raise purchasing power and food production of poorer groups, many of whom are landless or unemployed, community-based approaches face problems caused by skewed distribution of wealth and productive resources. Improvements in sanitation and hygiene practices as well as in food preparation will be limited in their effects without production and income changes. Even the boiling of drinking water involves the use of fuel, the sale of which may be the main source of family income. On the other hand, community efforts to make available supplies of clean drinking water through well digging, and improved village environment through swamp draining, can benefit all members of the community including the poorest. Such composite approaches to health improvement can also contribute to improved self-reliance and participation of building community organizations and skills. Such efforts could advance community efforts in many aspects of development. In these cases health intervention becomes the initial catalyst for community development in its widest sense.

D. Programme Improvements

138. For meaningful improvements to health services to occur a national commitment to improving the living conditions of all citizens, rural as well as urban is required. Without such a commitment the political weight of urban dwellers, the middle and upper class and most members of the medical profession will endeavour to see that most health resources continue to be allocated to large urban hospitals, equipped with advanced, expensive equipment. The result will be that only a small percentage of the population can be served. Improved programmes involve a sacrifice in that certain rare diseases, requiring expensive facilities and drugs, may go untreated at least locally. Set against this are the lives of vastly greater numbers of people currently condemned to dying or chronic sickness through lack of access to simple treatments or lack of knowledge about how to avoid illness.

139. Such programmes should form a part of a co-ordinated package of complementary community-based services. Local learning and decision-making bodies and

community cash and labour contributions would supplement necessarily limited government inputs. Health education leading to community efforts to improve environmental sanitation (swamp drainage, latrine digging, clean water supplies) hygiene and nutrition practices plus access to prophylactics and vaccinations (e.g. small pox) and tablets, (e.g. malaria, worms) will markedly improve most health situations. These activities must be supplemented by services and treatment given mainly by trained village volunteers, local healers and midwives or salaried paramedics (partly paid by the community). This group should preferably be nominated by villagers and given a short, practical training in rural areas.

Comprehensive Area Development Programme

(a) Objectives

140. In general this category of programmes is based upon the wider contemporary view of development objectives and the need to view them in an integrated fashion rather than singly.

141. Thus they recognize the mutually reinforcing potential of single sector or single objective programmes and attempt to exploit complementarities and eliminate duplication by combining several approaches within the confines of a single programme. An integrated project attempts to initiate the developmental process in a community in its social, and cultural, as well as economic and political life. For example, in attacking the health problems in a given village, the project should not deal only with the most urgent questions of curative medicine but also develop a system of preventative medicine, and attack questions of food and nutrition, sanitation and hygiene, food production and water resources, child care and family planning and literacy, as well as development and effective use of available resources. It is this vision of the overall development process which is the most important element of an integrated project.

142. Another characteristic of such programmes is that they adopt an area focus, either as a pilot scheme; to solve the problems of a poor area or to exploit the potential of a rich one; as an integral part of a nationwide disaggregated programme. They therefore share the same advantages as area-focussed agricultural programmes, i.e., the possibility of focussing on area specific problems; easier liaison with the local community; better inter-ministerial co-ordination at the field level and ability to concentrate resources so as to bring about quicker results. The disadvantages associated with agricultural area programmes also apply i.e., generally poor vertical (field to central headquarters) communications; tendency to high costs per beneficiary as resources are poured in to achieve "critical mass"; plus a poor record in terms of replicability.

143. This group of programmes encompasses three distinct streams of developmental emphasis and the underlying purpose of a particular scheme will depend on the relative weightings given to these:

- (i) The first emphasis, one which dominates many smaller area projects initiated by non-governmental organizations, is on the welfare and involvement of the whole community. It is apparent in area-based, "animation rurale" or community development projects and those which give the highest priority to "bottom-up" planning and community participation. This type

of programme is integrated mainly in the holistic sense of being based upon the overall needs and actions of the individual and community rather than starting from a set of vertically structured sectoral efforts.

(ii) The second common type of emphasis gives priority to increased incomes through improved agricultural production. The production focus is reflected in their adoption of cost-benefit analysis even though internal rate of return calculating may be modified to take account of "social" costs. Measures of equity effects, employment created etc. may also be included but field-level concern tends to be on maximizing the internal rate of return. Programmes dominated by the approach usually concentrate efforts on infrastructural investments and profitable new agricultural technology plus supporting services. Wider development goals enter such programmes mainly as means of loosening production constraints. Participation tends to be viewed in terms of increasing the rate of acceptance of planned innovations and providing communal labour for infrastructural improvements. Other sectoral efforts are seen mainly as welfare investments, necessary to have a healthier, more skilled work-force or as incentives to increase communal participation, rather than as ends in themselves. Many programmes of this type adopt a target-group approach by concentrating on small farmers.

(iii) The third emphasis is upon administrative efficiency and inter-sectoral complementarities through the integration of government programmes. Programmes dominated by this thinking usually adopt a systems approach to achieving broad development aims and view production as a means to this end. In addition, this group of programmes sometimes appears to make systematic planning, based upon a good data base, an end in itself.

(b) Characteristics and Problems

144. There are some examples of national programmes of comprehensive area development made up of an aggregation of area programmes, as most governments have not been prepared to make the financial allocations to rural areas which such an approach would entail and have preferred to continue emphasizing vertically structured, single-aim or single sector programmes. Thus, most comprehensive area development programmes have been donor-connected.

145. The IBRD and Inter-American Development Bank-assisted PIDER (Investment Programme for Rural Development) in Mexico is one of the few exceptions. It is a comprehensive, nationwide programme of rural development directed toward the regions of endemic rural poverty. The programme recognizes that employment and income benefits are often a necessary condition for rural development, but without a minimally acceptable level of food, shelter, education and health, they may not be a sufficient condition. The programme's primary objective is to provide investments and services in selected rural areas, in order to:

- a. raise rural living standards by introducing directly productive activities;
- b. increase levels of permanent and temporary employment; and
- c. strengthen supporting productive activities and improve basic social infrastructure.

To achieve these objectives, the government's strategy is to focus additional

investments in micro-regions by improving the administrative operations of its existing planning and execution system through the establishment of PIDER co-ordinating machinery in the Ministry of the Presidency. PIDER's strategy is threefold:

- a. increase and focus investments and services of existing agencies on selected poor rural micro-regions with productive potential;
- b. decentralize planning and especially execution, to state and local levels; and
- c. encourage village and ejido level participation in the planning and execution process.

146. To this end, a new planning and delivery system was developed that would embrace existing government agencies. Through this system, extra resources are allocated to these agencies in targeted poverty areas - areas which had been traditionally bypassed by these agencies' "nominal" programmes. The basic unit for purposes of investment programming in these selected poor areas is a defined micro-region comprising from two to seven contiguous municipalities within one state. The average micro-region contains about 50,000 persons living in three municipalities.

147. PIDER has three characteristics that distinguish it from ongoing rural development programmes. First, PIDER is directed to regions which are among the most depressed economically in the country. It is an attempt to redistribute income and productive capacity to communities which have been bypassed by other programmes. Second, budget control is exercised through the PIDER office in the Ministry of the Presidency, which has the power to assign all funds allocated for the PIDER programme. This is a departure from the usual situation in which each agency is independently funded and operates according to its own assessment of priorities. Financing of each micro-region is through funds allocated to each agency on the basis of an integrated micro-region investment plan; agencies can only withdraw funds for purposes approved in the plan. Third, it is an attempt to decentralize both planning and programme execution. This decentralization is directed at the involvement of beneficiaries in the planning process, and includes the strengthening of the planning and decision-making process of state and village levels. PIDER's micro-regional approach accords with FAO's criteria for an integrated rural development project, i.e., always package-comprehensive; synchronized delivery includes focus on poor strata of rural society; in general implementation only through area concentration and system planning.

148. The Vikiga Special Rural Development Programme (SRDP) in Kenya initiated in 1970 with the support of USAID is an example of an area programme (50,000 people on 128,000 acres) which was meant to form part of a framework of pilot programmes, the results of which would be amenable to country-wide application. Instead of agreeing to pool funds, however, donors insisted on being responsible for specific areas. Twenty-six rural development activities ranging from family planning to maize and tea credit were carried out, but after four years of activities little increase in area production or income had been obtained and serious problems were being experienced in gaining community participation in development activities planned solely by government officials and controlled from the capital city. The project also suffered from a conflict of aims as its pilot function clashed with the aim of training rural development administrators and improving new ones.

149. The urban project in Nigeria working with a similar number of people in six villages of East Central State and initiated in 1963, is by contrast considered a success. Following the guidelines developed from rural development projects financed by the Shell Petroleum Company in Italy and in other countries, a Nigerian agronomist employed by Shell worked closely with local leaders (traditional, religious, educational and political) and the University of Ibadan to complete a detailed socio-economic survey of the area and to evolve approaches to fulfill the following objectives:

- (i) to improve yield of major food crops
- (ii) to improve the diet through additional protein
- (iii) to increase agricultural earnings
- (iv) to improve the quality of social services and infrastructure.

The cost over a 10-year period has been estimated to be \$220,000 in Shell funds, over and above regular government expenditures in the area, on which a net return of five-to-one has been calculated. Based on previous experience, Shell identified the following factors as important for success:

- (i) the project must be long-term;
- (ii) the project area should be manageable, i.e., all families can be reached in a few hours. It was estimated that one field worker playing a catalytic role could handle 10-15,000 people;
- (iii) high quality, flexible generalists as staff who can provide links with technical specialists;
- (iv) an initial socio-economic survey (+ 10 months); and
- (v) project activities should be directed initially at simple problems and more complex ones can be tackled as the local population gains confidence.

The project shows how local resources can be mobilized over a long period with an infusion of technical assistance if understanding of the local situation is first built up v'ia a survey, local involvement is carefully cultivated, simple effective technological innovations introduced and imaginatively provided and that if incomes rise, local leaders can take the initiative in improving local services.

150. The Liberian National Programme of Integrated Rural/Regional Development in which UNDP and ten other multilateral and bilateral agencies participated, could not be described as a systems approach as it evolved on a pragmatic basis through gradually improving co-ordination between the programmes and projects of thirteen national ministries. Nevertheless, it reflects a national development strategy based on the development of rural areas and the programme, which has evolved from 1969 onwards, and was to be centred on the progressive establishment of a series of sub-regional or community growth centres in selected regions of the country. Each sub-regional or community growth centre will include a minimum package of activities including:

- (a) A multi-purpose community centre with facilities for:
 - (i) a community school including annexes for school feeding and for training in basic crafts and home economics and school gardens for learning agricultural techniques;
 - (ii) health clinics including family health programmes;
 - (iii) safe water supplies;
 - (iv) adult and community education;
 - (v) postal services and postal savings.
- (b) Farms for demonstration, training and production;
- (c) Facilities for distribution of farm inputs; collection points for produce marketing and storage; centres for agricultural credit and simple processing;
- (d) Farm to market and rural access roads;
- (e) Village housing and physical improvement;
- (f) Service and rural industries;
- (g) Rural electrification.

The programme has in the meantime been further refined and the government has taken a leading role in decentralizing the organizational structures down to the regional level and in promoting a greater amount of popular participation in rural areas.

151. The Tanzanian Ujaama Programme is a similar, rural-based development strategy with the equivalent of the Liberian community-growth centres being the Ujaama village. Both are based on the recognition that economic and social strategies are mutually reinforcing rather than constituting alternative development strategies or even conflicting objectives and both operate at the national and area level through a certain degree of decentralization.

152. There are many examples of community-based, small area development projects with broad development objectives and a co-ordinated multisectoral approach. The DESEC (Centro Para El Desarrollo Social y Economico) programme in Bolivia is a successful example of a nationally co-ordinated (by a national NGO) series of area initiatives which attempt to mobilize both the human and capital resources of the peasants, as well as foreign funding, to finance income-generating and social betterment endeavours on behalf of the rural poor. The project in Peru restricted to 380 families on one hacienda and controlled almost entirely by Cornell University contains many lessons for development workers:

- (i) outsiders can be most useful as catalysts and motivators
- (ii) it is prudent to attempt to bring about attitudinal changes slowly. Cornell took five years to prepare the community for self-management;

but even this period was not enough to prevent the encroachment on community autonomy by outside "do-gooders" who sought to step-up the time-table.

- (iii) any rural development undertaking is extremely vulnerable if based upon a single cash crop.

153. The foregoing examples of comprehensive area programmes will have conveyed an impression of the rather wide range of approaches which are to be found as a result of (a) the differing weight given to various development aims; (b) the way in which social welfare activities are perceived; and (c) the way in which communal involvement is approached. The common problems associated with this category of programmes will also vary in importance according to the details of the programme, but all are affected to a greater or lesser extent by the same types of problem. These problems may be classified into three main groups:

- (i) those inherent in the constituent parts of these comprehensive, multisectoral programmes;
- (ii) implementation problems arising from the area focus and the comprehensive nature of the undertaking;
- (iii) problems of sustainability and replicability.

154. Problems inherent in the component parts of a comprehensive area programme have been touched upon earlier in this chapter and they mainly relate to the introduction of new technology in its broadest sense (the technical package plus supporting factors):

- (i) **Comprehension:** technology not understood by the users may not be fitted optimally into living or production patterns. If it is too complex compared to that in use, or if too many innovations are made available simultaneously, confusion will result.
- (ii) **Control:** it implies more than understanding, it involves maximum self-reliance in input provision and maintenance aspects of the technology, e.g., seed which can be saved from the previous crop gives greater control over crop production than that of hybrid varieties which must be bought from outside; oxen fed on farm-grown feed give more control than a tractor for which spare parts may be unavailable and maintenance slow and costly
- (iii) **Support Services:** availability and effectiveness of services will influence the speed at which innovations spread throughout the community and the utility of any new technology.
- (iv) **Profitability or Cost Effectiveness:** profitability or proof of cost effectiveness of productive technology or institutional innovations is necessary before individuals will face the risk, expense and inconvenience of changing current production patterns or embark on changing existing patterns of organization. The existing resource situation must be faced (i.e. relative cost viz. alternatives); micro-climate; soil conditions and annual climatic fluctuations in the case of biological technology and changes in the profitability of competing

technologies or products, and changing inputs prices.

(v) Risk: the size of the risk involved and the probability that expected results will not occur, affects the speed and degree of adoption of new technologies yet this perception of risk may differ between the researcher and the farmer because of the difference between "laboratory" and field conditions.

(vi) Unless factors are introduced to the contrary, the poor may not gain access to the needed inputs, and they will nearly always stand second in queue.

155. Implementation problems related to the area focus and multisectoral nature of the programmes, may be summarized as follows:

(i) Co-ordination at the local level has often been good where the stimulus of a technical co-operation project has involved local ministry representatives in planning and implementing joint activities in order to achieve shared goals.

The catalytic effect of technical co-operation could be substituted by the chief government representative in the region (governor, regional commissioner, prefect, etc.) but in many cases they are not trained nor provided with the staff to enable them to carry out the planning and evaluation functions which would form the substantive basis for intersectoral co-ordination. Problems will also arise in the phasing of the project (because of planned strategy or budgetary restrictions) this calls for a single sector thrust which omits any intersectoral involvement until a second phase. Such programmes may carry the label "integrated" but neglect ongoing regular programmes in several sectors in order to concentrate on the "initial thrust". To attempt to reorientate and incorporate these programmes at a later date not only involves a loss of time but means that feelings of estrangement and separation have to be overcome.

(ii) Co-ordination between the field and the centre will give rise to several problems where no national "umbrella" programme exists, as each involved ministry is dependent on a separate channel for budgetary, personnel and policy decisions. Even if a national-level co-ordinating committee exists, experience has been that such bodies often do not become operational or, if they get off to a promising start, they "soon run out of steam when the heads of the agencies start sending their deputies and later the deputies send their deputies".

(iii) Administrative problems may stem from inadequate political commitment and lack of strong budgetary and policy support, but in practice amount to a mass of minor weaknesses - not enough transport, slow delivery of spare parts, no communications links, inadequate petrol allowances, vacancies and staff turnover, late delivery of seeds and fertilizer, etc. The general administrative situation in many Third World countries combined with difficulties of inter and intra-ministerial co-ordination has led donors, and sometimes governments, to set up in several cases, separate programme or project authorities (e.g. Lilongwe) but these have proved to be a palliative rather than a lasting solution

for Uma Lele 9/ has pointed out, apart from overlaps in function with existing administrations plus jealousy engendered by better working conditions, that:

"As the time approaches for transferring administrative responsibility for some of the autonomous integrated rural development programs from the project authorities to the indigenous administrations, the gap between the capacity of the two administrative systems has become a subject of particular concern to persons involved in designing rural development programs.

Paradoxically, the institutional gap seems to have arisen because the integrated programs have attempted to accomplish far too many visible results in too short a time period and, therefore, have been able to allocate only a limited time and effort to development of institutional capability. The gap exists at three levels, first, the indigenous regional administrations do not have the capability to carry out the policy and co-ordinating functions at the regional headquarters. These are now being carried out by autonomous administrations. This capability is critical for administering complex integrated programs, since they involve activities of a number of departments and local governmental agencies as, for instance, agriculture, transportation, and health. Second, the institutions to handle the commercial aspects of the programs such as agricultural credit and input and output marketing, either do not exist (since the programs have handled these functions) or do not yet have the administrative capability to manage the activities on the requisite scale. Third, the local organizations and local administrative units being developed by programs do not correspond to the existing local governmental institutions raising difficult questions related to maintenance and expansion of the various local services."

What happens when the special inputs of a programme or project are eventually withdrawn? Can the momentum generated be sustained and will the experience be applied elsewhere? Too often there is a slow running down of activity, broken machinery is not repaired, new seed not bought-in, standards of hygiene fall and groups cease to function.

156. Pilot programmes remain isolated examples of what can be achieved, but are not copied or reproduced, although they may be replicated in yet another special set of activities which typically involves repeating the same experience all over again. This problem's major ingredients may be summarized as follows:

(i) Self-reliance tends to suffer as a result of paternalism. It is readily forgotten from the top that the dimensions of poverty are so great that no "programme" can afford to substitute its own resources for self-help efforts. Where resources are used in this fashion to produce quick results, or to reduce managerial problems, individuals in the community affected, quite correctly come to realize that they can increase their benefits through petition more than production. They

play the system. It is that they are inherently dependent, but that they react to the permissive and relatively well-endowed environment in which they find themselves and demand more, refuse to pay for services and complain and agitate simply because these approaches bring results. Programme reviewers commissioned by World Bank for the African Rural Development Study also emphasized that the paternalism of program administrators is one of the severe constraints to development of strong, viable local organizations. This attitude tends to lead to excessive protection and subsidization of local organizations at the outset, resulting in inefficiencies and a lack of willingness on the part of the rural people to share responsibility along with benefits.

(ii) Participation of affected communities in the activities of the programme, which can be depressed if planning is done entirely by officials as in the Vichiga scheme, is rarely optimized, primarily because the knowledge of how to organize such involvement is limited. Experience in a range of programmes has shown that participation is no problem if feasible and profitable opportunities are offered. Problems do occur however, where programme administration is paternalistic and societies where resources are unevenly distributed. In the latter case the benefits of communal participation may follow a similar uneven pattern and it would be unrealistic to expect a uniform level of enthusiasm for such activities.

(iii) Resource levels necessary for "high impact," "big push" approaches usually can only be afforded by external donors and tend to dwarf local resources. Some approaches also encourage capital intensive and complex technologies with the result that input levels cannot be maintained after a special scheme ends unless local government is obliged to devote a disproportionate amount of its scarcest resources to keeping the movement alive. Huge capital inputs and separate project administrations reduce the chances of replicability.

(c) Development Impact

157. Although externally-aided area schemes with high costs per input can have little developmental impact in national terms, smaller schemes based on simple technology communal involvement have undoubtedly been responsible for the spread of relevant production technologies (e.g. the Mennonite (MOC) activities in Bangladesh with water, wheat and soya bean) and their spontaneous adoption outside the programme areas. The holistic approach involved, when pitched at the local level can be a powerful means of increasing self-reliance and communal participation, but large injections of outside funds and "forced pace" changes could have the opposite effect. This type of programme provides a framework for a series of sensible interventions and ideas. At the same time, however, it may contain potentially negative effects including deleterious effects on equity if, in their eagerness to show results, officials rely on larger, "progressive" farmers to introduce innovations or depend solely on traditional structures which operate in favour of the wealthier elements in society.

(d) Programme Improvements

158. A review of rural development programmes in Africa concluded that the main limiting factors were i) inadequate knowledge of technological possibilities; ii) limited experience of appropriate forms of administrative institutions and their transferability; iii) poor knowledge of the socio-cultural and institutional environment; and iv) extreme scarcity of trained local manpower.

159. The factors involved in improving both the organizational (software) and technical (hardware) aspects of technology have been discussed in relation to previous programmes and the major conclusions were (a) that the community should be involved in suggesting the direction of research efforts and in testing the results; (b) that innovations should be simple, and as close to current technology, practices or organization as possible since too great a leap might cause confusion and loss of control by the individual and community; and (c) technology should depend as far as possible on commonly available local resources in order to promote self-reliance and prevent greater inequality as a result of its application.

160. The administrative and manpower situation is related to the scale and type of project. Small community-based initiatives are much less dependent on complex administrations. The manpower constraint can be alleviated through training of para-professionals nominated by the rural community and several programmes of different types attest to the effectiveness of this approach. Community organizations can also ease the manpower situation.

Small farmers' organizations contributed significantly to project success by:

- (i) provision of a vehicle through which farmers can share in decision-making;
- (ii) assistance in developing a two-way communication system;
- (iii) reinforcing behavioural changes, such as adoption of new agricultural practices;
- (iv) facilitating the provision, integration and administration of farmer services; and
- (v) mobilizing resources for local infrastructure erection and maintenance.

Small farmers organizations tend to be successful when:

- (i) they organize around a concrete goal which can be achieved in a limited time period;
- (ii) when they start with a single task and not several;

- (iii) when the task can be carried out in a way which minimizes the need for scarce skills such as bookkeeping, e.g., building infrastructure; distribution of water on a small scale;
- (iv) when co-operation is required around a task that cannot be done at an individual level, e.g., construction of an access road; group credit. Marketing and communal farming groups are problematical as the tasks can be carried out by an individual as well as a group;
- (v) when the groups are small and unconnected to other groups as (a) outside pressures and rivalries can increase group cohesion; (b) smallness allows effective peer pressure.

Co-ordination problems can be avoided by greater decentralization of authority and by financial control being placed at the local authority level. Training in planning and evaluation procedures could also bring about better co-ordination between officials and with the local community as technical specialists must be encouraged to take a broader systems view of development problems. Effective ways to achieve co-ordination include the formation of inter-ministerial teams to help plan and monitor the programme on the basis of common goals, commonly derived data, and specifically recognized intersectoral linkages and the integration of each area programme into an explicit national strategy for rural development.

161. The knowledge situation referred to by Uma Lele¹⁰ can be improved by a survey and investigation in which the local people are involved, the process being used to win their interest and confidence before moving jointly to the planning stage. The description of an Indonesian doctor in preparing himself for a community health programme in a Javanese village included many desirable, non-mechanistic aspects of the process: "This period was also used to get acquainted with the village infrastructure, the process of decision-making, the socio-economic and cultural background, through personal contact and observation.... Day after day, sometimes in the evenings loitering in the village, having tea with people in their homes - I learned a lot from what I saw and heard of the poverty and misery. I learned to speak the same language of poverty, to see through the peoples' eyes the life they lived, almost a routine of short-comings and hunger, without any hope of improvement. I understood their apathy and surrender and, worst of all, their loss of human dignity. This process of change in my way of thinking and feeling took place slowly." What is important in this phase is the need to go beyond mere data gathered quickly by a survey and to develop understanding and empathy as well as a basis of mutual co-operation with the community involved.

162. Planning should also involve the community and should be flexible. Uma Lele has written of "learning by doing" favouring a minimum of pure survey research. "Light" planning but "strong" evaluation is advocated so that, "the many problems, constraints and shortfalls to be reckoned with in integrated rural development exercises can be better identified and better

taken care of by way of corrective and alternative action", during the programme instead of before it; this is a warning against preconceived plans of action. The community must be persuaded to accept actions to help people identify their most pressing needs (not simply their wants) to see how far their individual priorities coincide with priorities of others and to muster their individual and joint resources.

163. Initial activities might be directly income earning or could concern, health status, community welfare facilities or infrastructural improvements. The important point is that the community should identify priorities through a process of discussion based upon information gathered locally and with a full knowledge of the type and level of government support available. The planning process should be combined with that of local government officials who initially will have to train rural people in data gathering, planning and evaluation techniques. It is also necessary to carry out the process within a suitably long time frame as attitudes and human resource capabilities do not change overnight. Planning which is done for the people and which gets ahead of the comprehension and commitment of the people increases the risk of failure. The systems approach is a useful basic concept, when it can be transferred to community planning groups, but if it leads to a directed, mechanistic approach, its potential cannot be exploited.

Relative Government and Donor Emphasis

164. In deciding the relative importance to be accorded to different groups of programmes in terms of resource allocation, the deliberations of Governments and donors are governed by different sets of considerations. National plans generally dictate that the portfolio of programmes will be weighted to delivering measurable outputs such as aggregate food production, primary pupils enrolled, or health centres constructed and the qualitative considerations such as equity and communal participation take a secondary role.

165. Ongoing programmes are tied to regular budgets already allocated and so there is a tendency not to innovate with new approaches. This lack of flexibility is reinforced by the near absence of effective in-service training to give the necessary staff reorientation. Senior administrators are usually too over-burdened monitoring the staff of their orthodox vertically structured programmes to contemplate with favour the complications introduced by communal involvement, inter-ministerial undertakings and experimental approaches. Similarly metropolitan senior officials react instinctively against proposals which would involve surrendering part of their control and authority to provincial officials.

166. Donors, on the other hand, often have greater flexibility in switching financial resources between programmes. They can shift the balance of specialists they recruit fairly easily and many have research staffs and ready access to academic research findings which raises awareness of contemporary development issues and alternative approaches. They are not constrained by internal political considerations in the receiving countries to the same extent as national governments although they are of course bound by the restraint of respecting national sovereignty.

167. Nonetheless, bilateral donors are acutely aware of the diplomatic and trade advantages to be derived from external assistance and are also normally attracted by "high impact", easily measurable, quick results. The United Nations system is not affected by this latter consideration but is forced to balance the dual goals of translating fairly radical UN resolutions into action while according to the wishes and priorities of individual recipient countries expressed at the field level.

168. Until the past five years or so, however, government and donor priorities among those programmes with an actual (as opposed to potential) direct effect on rural conditions almost coincided. Agricultural production programmes with an emphasis on infrastructural improvement together with public works programmes providing temporary employment were, and still are, major priorities. What has changed is the emphasis now given by many donors to small farmer programmes, especially for food crops, with a concomitant boost in aid to national research programmes and (food) commodity programmes. While governments have continued to have resources tied to infrastructural improvements such as market roads and irrigation, donors have increasingly sought to encompass these within area-focussed agricultural schemes and comprehensive area programmes. Similarly donor-assisted extension, credit and marketing projects are being "packaged" comprehensively thus commonly causing resistance among national institutions faced with a more complex bureaucratic task, especially when non-governmental banks and marketing agencies are included. Donor enthusiasm for informal education methods, while not proportional to the stress placed on preparing disadvantaged groups to play their part in the development process, is still given a higher priority by donors than by most Ministries of Education who continue to be pre-occupied with programmes of formal schooling. Similarly the WHO inspired primary health care approach and the relative UNICEF basic services concept are running into resistance by medical administrators taught to think in terms of large hospitals and expensive equipment to cure the sick rather than to think of programmes to improve health.

169. Meanwhile the NGOs, because of their small size, continue to operate largely independently of Government programmes and to supply examples of innovative approaches to comparatively neglected development issues such as programmes for women and youth. Most of these programmes are intersectoral, but do not involve separate government services in co-ordination problems, and are directly financed so that field to centre problems are minimized. Against the advantages which such separation brings must be set the disadvantages of minimum impact on the government apparatus.

Relative Ease of Implementation

170. In considering the relative ease of implementing programmes the following factors should be examined:

Administrative and organizational factors

- (i) the number of agencies and sectors involved;
- (ii) geographical coverage;

- (iii) staff numbers and skill levels needed;
- (iv) complexity of supporting equipment, maintenance and spare parts; and
- (v) budgetary support situation.

Policy factors

- (vi) vulnerability of programme outcome to price changes
- (vii) dependence of programme on structural changes.

Community factors

- (viii) need for broad community acceptance, adoption or utilization;
- (ix) need for community labour or other resource contributions;
- (x) extent of difficulties raised by social and economic differentiation;
- (xi) Market and Motivational factors are important if demand for the products of a programme (material or services) is involved;
- (xii) Technology which is feasible, profitable and low risk;

171. The ideal programme for easy implementation would be single sector, single agency, short-term, small staff, simple equipment, well budgeted, independent of price levels and structural change, providing access to available effective technology, providing benefits or be equally accessible to all strata of rural society, acceptable to the community and relatively independent of community inputs. Such a programme probably does not exist but some fulfill a number of these criteria.

172. Public works, vocational training and infrastructure (drinking water, feeder roads, electricity) programmes all have access to relatively simple effective technology. Public works schemes do sometimes have problems of supervision and labour organization but these are not complex compared with other programmes as labour receives a set wage or piecework rate. Vocational training programmes may be plagued by the problem of effective utilization of graduates. Infrastructural programmes often have maintenance problems as this function is often left to the community without the requisite training components.

173. The next level of programmes consists of agricultural service programmes, extension, credit and research which find implementation difficulties in fulfilling their objectives, for although each is run by a single separate agency they are usually national in scope and involve large scattered staffs (especially extension) and depend on community acceptance. Research programmes are the most protected as their product must be "retailed" by extension

programmes with the aid of credit. Agricultural commodity programmes have scored some notable successes but they are complicated by co-ordination problems arising from the constituent service agencies. Also, like extension programmes, agricultural commodity programmes are vulnerable to the need for a flow of good innovations, made profitable by favourable, price policies and adequate markets. Fewer implementation problems are encountered when the goal is to increase aggregate production without considering the effects on equity, and concern with equity considerations could in the short run, cause short-falls in production targets by diverting efforts from larger farmers.

174. Co-operative programmes are more difficult to administer especially if a blanket programme has been imposed without communal initiative and if alternative private marketing and credit channels are functioning efficiently. In addition, a wide range of skills from credit management, accountancy, transport fleet management, commodity storage, committee procedures, co-operative principles and even some literacy must be transferred, often in an atmosphere of reluctant participation and dependency.

175. Non-formal education programmes are located further down the scale of implementational complexity as they are often under-funded, scattered and totally dependent on voluntary participation, yet have little to offer in the nature of short-term, individual, material benefits. They are therefore dependent on inculcating a feeling of group solidarity and enthusiasm and therefore must depend on other technical ministries for help in raising learning, discussions and planning to the stage of concrete developmental undertakings. The same problem faces community development programmes, but not in quite such an acute form as they generally have their own funds and staff to execute small infrastructural projects. Primary Health Care programmes are also complex as they involve all aspects of a community's development and are dependent on other technical ministries in much the same way.

176. Comprehensive area development schemes have problems arising from their multisectoral approach and they rarely have national backing. Perhaps the greatest implementation problems start when the termination of external funding and technical co-operation occurs. These problems will be greatest where the programme has developed an implementation machinery in isolation of regular government programmes, where complex technologies have been introduced and where dependency has been encouraged by substituting programmes for community resources in order to accelerate the pace of change.

177. Finally, agricultural reform programmes must be considered among the most difficult to implement because many are nationwide crash programmes depending on speedy implementation by a hastily formed administration in the face of much political opposition and the often inflated aspirations of the landless. Credit services have often to be organized from scratch, extensive services basically reoriented, marketing channels created and a massive skill training and education programme launched often by utilizing the services of technical ministries fully occupied with other tasks.

178. In summary, increasing complexity of programme implementation can be correlated with an increase in the number of agencies involved, greater community involvement, dependence on decentralization of authority and financial control, need for a flow on new profitable and feasible technology and conditional changes in political commitment and socio-economic structure. Although an approximate ranking of programme types has been attempted, it should not be forgotten that programmes within the same programme category can vary in complexity according to the breadth of the objectives which they try to attain.

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APPENDICES

FOOTNOTES

CHAPTER I

Para.

- 2 (1) A Turning Point, the U.N. System and Poverty-Oriented Rural Development, Khan.
- 13 (2) The poverty group is defined by the World Bank as those who have an annual capital income equivalent to \$50 or less (the absolute poor who comprise 85 per cent of the total poor), plus those who have income less than one-third of the national average (the relative poor who make up the remaining 15 per cent).
- 15 (3) World Bank, 1975

CHAPTER II

- 42 (1) Typical of the comments on this issue were the following:
- "However, the target date set for completion did not take into account the immense problems of co-ordination, capital and technical assistance from ten external sources. The programme is expected to be extended another 5 years or more."
 - "However, due to lack of technical/managerial staff in the Government to implement its Master Plan, the Government had to go through some organizational change to overcome this constraint, which caused the delay of the implementation of the Master Plan more than a year."
 - "The Government personnel and co-operative managerial staff becomes more and more inadequate because of the huge memberships compared to total field staff. (3,000 workers - 1,400,000 members of more than 22,500 associations)."
 - "Lack of a senior liaison officer with full delegation at the field headquarters was one of the weak points which largely influenced the activities. Lack of office space, including drawing rooms, laboratory, etc., and lack of labour and cash for operational purposes reduced the work efficiency of the staff tremendously."

CHAPTER IV

Para.

- 3 (1) Stavenhagen 1975, Stavenhagen, R., Social Classes in Agrarian Societies, Garden City, N.Y.
- 5 (2) Shanin, T., ed., Peasants and Peasant Societies, Harmonworth, Penguin, 1971.
- 7 (3) Thomas, F., (1978).
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- 55 (18) Omvedt, G.O., 1974, Review of Ianuzzi Agrarian Prices in India. The Case of Bichar: Bulletin of Concerned Asian Scholars, Vol.6.
- 61 (19) Mencher, T.P., Agriculture and Social Structure in Tamil Nadu, New Delhi, Allied Publishers, 1978.

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(Footnotes Chapter IV - cont'd)

Para.

- 62 (20) Mitter, S., Sonarpur: A Peasants View of the Class War, South Asian Review, July-Oct.1975.
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- 61 (30) In 1970-1975 less than 1 per cent in Ethiopia, Ghana, Ivory Coast, Kenya but in Egypt (100 per cent), Madagascar (90 per cent), Sudan (27 per cent), Somalia (17 per cent), and Swaziland (31 per cent); 18 per cent in Cuba, 17 per cent in Costa Rica, 14 per cent in Haiti, 25 per cent in Mexico, but generally lower in South America (about 5 per cent) except in Chile (58 per cent), Peru (40 per cent) and Venezuela (17 per cent). In the Middle East and Asia: 42 per cent in Iran, 20 per cent in India, 38 per cent in Indonesia, 45 per cent in Sri Lanka, 13 per cent in the Philippines and 33 per cent in South Korea.
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