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Agricultural Marketing Policy Reform Program

Program Assistance Initial Proposal

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ABBREVIATIONS USED

ADB	African Development Bank
ADF	African Development Fund
ADO	Agriculture Development Office (USAID)
AMTT	Agricultural Marketing and Technology Transfer Project
ATPRP	Agricultural Trade Policy Reform Program
BEAC	Banque des Etats de l'Afrique Centrale
B.I.E.P.	Bureau Interministériel d'Etudes et de Projets
BSA	Bureau de la Statistique Agricole
CAA	Caisse Autonome d'Amortissement
CAR	Central African Republic
CC	Chambre Consulaire
CNPT	Conseil National de Patronat du Tchad
CCCE	Caisse Centrale de Coopération Economique (France)
CO	Controller's Office (USAID)
CTT	Coopérative des Transporteurs du Tchadiens
EDF	Economic Development Fund (European Community)
ESF	Economic Support Fund (USAID)
FAC	Fonds d'Assistance et de Coopération (France)
FED	Fonds Economique de Développement (European Community)
GOC	Government of Chad
ILO	International Labour Organization
IMF	International Monetary Fund
IBRD	International Bank for Reconstruction and Development
IRR	Internal Rate of Return
LC	Local Currency
MDR	Ministry of Rural Development
MOC	Ministry of Commerce
MPC	Ministry of Plan and Cooperation
MOF	Ministry of Finance
NGO	Non-Government Organization
NPA	Non-Project Assistance
OFNAR	Office National des Routes
ONC	Office National des Céréales
ONDR	Office National de Développement Rural
PAAD	Program Assistance Approval Document
PAIP	Program Assistance Initial Proposal
PSC	Personal Services Contract
PVO	Private Voluntary Organization
PVO/DIP	PVO Development Initiatives Project
SDMP	Strengthening Development Ministries Program
SIMAT	Société Industrielle de Matériel Agricole
SOTERA	Société Tchadienne d'Exploitation des Ressources Animales
SOW	Scope of Work
TSAP	Transport Sector Adjustment Program

UDEAC	Union Douanière des Etats de l'Afrique Centrale
UNDP	United Nations Development Programme
USAID	U.S. Agency for International Development
VITA	Volunteers in Technical Assistance

SECTION ONE

RECOMMENDATIONS AND CONCLUSIONS

(To be drafted by the Mission for submission to Washington.)

SECTION TWO

PROGRAM CONTEXT

THE MACROECONOMIC CONTEXT

The Structure of the Economy

Chad, with a population of 5.5 million, is large (1.3 million square kilometers) and landlocked — located 1,500 km from the nearest port. The economy is based almost entirely on agriculture under relatively difficult growing conditions. The country is divided into three climatic zones: the large sparsely populated Saharan zone; the Sahelian zone, characterized by low and variable rainfall where the major activities are cereal and livestock production; and the Sudanese zone, which receives relatively abundant and dependable rainfall and produces mostly coarse grains, cassava, and cotton, with a significant livestock subsector.

Total GDP is about 325 billion CFAF, equivalent to about $1.1 billion, or about $200 per capita. During the 1985-1989 period, the primary sector accounted for an average of 42 percent of GDP (28 percent crops and 14 percent livestock). Except for cotton, agricultural production uses almost no modern inputs. Cereal yields are well under one ton per hectare and the livestock sector produces offtake rates of under 15 percent, only a fraction of what is achieved under modern herd management systems. With almost no irrigation except near lakes and rivers, production fluctuates with rainfall. Therefore, despite being self-sufficient in food in an "average rainfall" year, the country experiences food deficits with some regularity.

The major sources of agricultural cash income are livestock and cotton, and millet and sorghum produced for the urban centers. More than 1 million Chadians depend on livestock as their primary means of livelihood. Cotton, the largest cash crop, is produced in the south by about 250,000 farmers using seeds, fertilizers, and pesticides provided by the cotton parastatal, COTONTCHAD. With about 100,000 tons of cereals marketed annually, cereals are the second largest cash crop.

Livestock and cotton account for most of the country's export earnings in approximately equal proportions, although as much as 80 percent of livestock exports are unofficial and are therefore unrecorded. About 25 percent of livestock production is for domestic markets. Fish is also an important export, providing seasonal employment for more than 100,000 people.

The manufacturing sector accounts for about 16 percent of GDP. More than half of the formal manufacturing sector is accounted for by five firms — COTONTCHAD, the Société Nationale Sucrière du Tchad, the Brasseries du Logone, the Société Tchadienne du Textile, and the Manufacture de Cigarettes du Tchad. These firms employ approximately 3,500. There are another 80 to 100 manufacturing firms in the formal sector, each employing 10 to 100 employees.

There are also many small manufacturing enterprises in the informal sector. A survey of the informal sector in N'Djamena by the ILO found that manufacturing microenterprises employ about 5,000, accounting for 10 percent of the city's informal sector employment.

Petroleum resources were discovered in 1974, with reserves near Lake Chad and in the south. A small refinery, scheduled to be completed by 1996, will substantially increase and change the composition of the formal manufacturing sector. The refinery is expected to meet Chad's domestic requirements, but will not produce for export.

The service sector accounts for about 41 percent of GDP (30 percent commerce and transport, and 11 percent other services, including government). Except for government and a few large enterprises (banks, insurance companies, and large wholesalers), this sector is made up of many informal sector businesses. The survey mentioned above found that the informal service sector employed 50,000 in N'Djamena alone.

Chad's external trade consists of exports of agricultural products and imports of manufactured goods. The main exports are cotton fiber, mostly to Europe and Japan, and livestock, to neighboring countries. The main imports are food products, capital goods, and military equipment. The food and military equipment imports are mostly aid-financed. Because Chad is located so far from the ports, its import bill is substantially increased by freight and transport charges.

There is significant trade with neighboring countries that is not reflected in the official figures. Most of this trade reflects natural comparative advantages. Chad exports fish and livestock, and imports manufactured consumer goods. The majority of this trade is with Nigeria. Since the naira is not a convertible currency, this trade is affected by Nigerian trade policies which can cause large fluctuations in the naira-CFAF exchange rate.

Chad's structural external trade deficit (averaging 25 percent of GDP in recent years) is financed largely by foreign aid, supplemented in recent years with foreign capital investment by petroleum companies carrying out oil exploration. Consequently, the country has relatively little external debt. In 1989, external debt equaled 36 percent of GDP, and debt service payments were a low 6.7 percent of exports of goods and non-factor services.

A striking characteristic of the Chadian economy is the small size of the private formal sector. To some extent, this is to be expected in an economy with a large subsistence agriculture sector and limited purchasing power in both urban and rural areas. Nonetheless, for Chad to achieve sustained economic growth, a larger formal sector is essential. As long as most of the economic activity remains in the informal sector, economies of scale will not be possible, labor productivity will remain low, and many of the services needed for development, such as banking, insurance, and legal services, will continue to be seriously lacking. Also, the government is almost entirely dependent on the formal sector for revenues. In the absence of a growing tax base, key social and economic services — notably education, health care, and infrastructure maintenance — will constrain growth and reduce the quality of life of most Chadians. Alterable constraints to growth in the formal sector are discussed in the next section. Those that directly affect agribusinesses involved in agricultural marketing are addressed by the proposed Agricultural Trade Policy Reform Program (ATPRP).

A second important feature is that the Chadian economy is part of a larger economic region dominated by Nigeria and to a lesser extent Cameroon, but also including the Central African Republic, Congo, and western Sudan. Chad's long-term growth will depend on developing its comparative advantages in this broader market. Over time Chad must export those commodities it can produce most efficiently, and import those commodities that can be produced more efficiently elsewhere. This requires the removal of as many barriers to regional trade as possible, and a sound understanding of the relative endowment of productive resources within the central African region. The country's macroeconomic policies should be based on developing the resources that are relatively abundant in Chad. These are the policies that will be addressed by the ATPRP.

Macroeconomic Performance since Independence

For the first ten years following independence in 1960, Chad had a steady economic growth of approximately 2 percent a year in real terms, and, because of favorable climatic conditions, the country was self-sufficient in cereals. Then, between 1970 and 1973, a major drought caused a 10 percent drop in real GDP. The economic situation recovered in the following five-year period before declining by 20 percent during the 1979-1982 civil war. The civil war demonstrated that the cultural, social, and economic heterogeneity of the ethnic structure was still an important source of conflict. In addition, the process of forming a national identity was perceived as being far from complete.

The three-year period following the war, although irregular in terms of economic performance, was a period of growth. In 1983, GDP grew by 15.6 percent in real terms, reaching about 85 percent of its pre-war level. This performance was due to, among other things, an excellent cotton crop and high world market prices. In 1984, because of an unprecedented drought, food production dropped, large numbers of livestock were lost, and GDP increased by only 2 percent in real terms. The next year, cereals production doubled and GDP increased by more than 20 percent in real terms, finally reaching (and improving by 12 percent) its pre-war level of 1977.

In 1986 and 1987, however, part of the gain accumulated in 1983-1985 was lost, with real GDP declining by 4 percent and 3.4 percent, respectively. Real GDP in 1987 was only 5 percent above pre-war level. The decline in world cotton prices combined with the depreciation of the U.S. dollar — the currency in which cotton is traded — caused the crisis. The situation was aggravated by COTONTCHAD's weak financial and administrative management. The donors and the government responded to the crisis with an emergency structural adjustment program.

For 1988 and 1989, GDP growth rates in real terms were 17.6 percent and 0.9 percent, respectively; for 1990, the estimated growth rate was 2 percent in real terms. Economic activity improved substantially as a result of the structural adjustment program. However, real per capita GDP in 1989 represented only 73 percent of its 1977 level, showing clearly that the standard of living of the majority of Chadians had worsened in the last thirteen years.

Thirty years (1960-1990) of independence in Chad have been accompanied by long military conflicts, periodic droughts, and several cotton crises. Those events reflect unalterable constraints that existed at the time of independence and contributed to accentuate underdevelopment. However, when conditions permitted, growth was possible and often significant, resulting not only from the activities of the cotton subsector but also from livestock trade activities (formal and informal) and the dynamism of the informal urban and rural sectors.

Is growth still possible? Can the conditions for growth be improved? Even under conditions of political instability, Chad has shown that growth is possible under the right policy conditions. One important set of policies has to do with increasing the efficiency of the agricultural marketing system, not only internally but, more important, within the context of the broader central and west African region.

GOC DEVELOPMENT POLICIES AND PROGRAMS

The Structural Adjustment Program

The GOC is currently implementing a multidonor-supported structural adjustment program aimed at recovering from the 1979-1982 civil war and the collapse of the cotton sector in 1986, and creating a policy environment conducive to long-term private sector-led growth. The government clearly is disengaging from direct participation in production and eliminating market-distorting controls over private sector economic activities.

During the civil war, government services, including education and road maintenance, came to a virtual halt. Prior to the start of the current road rehabilitation program, the primary road system in Chad was in serious disrepair, providing extremely difficult vehicle access to most parts of the country. The education system essentially stopped functioning from 1979 to 1982. Even today, only 34 percent of primary school-age children are in school. The civil war was followed by the cotton crisis, which had a major negative impact on the formal sector, both public and private. In 1983-1986, COTONTCHAD's operating costs increased by 30 percent, while income dropped by two-thirds. By 1986, COTONTCHAD's losses amounted to a massive six percent of GDP.

The ongoing GOC structural adjustment program started in 1987 with an IMF Structural Adjustment Facility and a World Bank Financial Rehabilitation Credit. USAID has also been a major supporter through the ESF-funded Strengthening Development Ministries Program (SDMP) program. The structural adjustment program, now in its third phase, has three major components. The first and, in the short run, most important is the restructuring of COTONTCHAD. By closing unnecessary facilities and reducing staff by 50 percent, COTONTCHAD was able to reduce production costs from a high of 1,000 CFAF per kilogram in the 1984-1985 season to 470 CFAF per kilogram in 1990. These reduced costs, combined with a partial recovery in world cotton prices, resulted in the complete elimination of COTONTCHAD's deficit by 1990.

The second component is the improvement of the GOC's fiscal performance. The structural adjustment program calls for revenue generation and expenditure control measures to enable the government to better provide essential economic and social services while reducing payment arrears. Measures agreed to between the GOC and the IMF and World Bank include more effective tax collection, an increase in the tax base, and a shift in tax incidence from trade activities to income and consumption. These measures, combined with improvements in economic performance, resulted in an average annual increase in tax revenues of 20 percent over the 1988-1990 period. During this same period, expenditures increased an average of 10 percent per year.

The third element of the structural adjustment program, and the most important in terms of the country's long-term development, is a set of economic liberalization measures designed to put the Chadian economy on a sustainable market-led growth path. The focus of these measures has been on elimination of government-created monopolies and associated price controls.

In 1989, the transportation monopoly, the Coopérative des Transporteurs Tchadiens (CTT) was disbanded and transport tariffs were decontrolled. The World Bank's advisors under the Transport Sector Adjustment Program (TSAP) estimate that this measure resulted in a 20 percent reduction in freight rates. In 1990, as part of the World Bank-financed Livestock Sector Adjustment Program, SOTERA's control over live animal exports and monopoly of refrigerated meat exports were eliminated. Recently, agreements were reached between the GOC and the World Bank regarding the privatization and demonopolization of Societe Industrielle de Materiel Agricole (SIMAT), the agricultural equipment manufacturer, and the liquidation of the Office de Mise en Valeur de Satequi-Deressia (OMVSD), the rice-production parastatal.

The government has also discontinued most of the *prix homologués* system of price controls, and the Office National des Céréales (ONC) is no longer attempting to stabilize prices, an effort that had been costly and ineffective. The next step is to change the fiscal and trade policies that have discouraged private investment in the formal sector and resulted in a large clandestine informal sector. These are the policies that will be addressed in the ATPRP.

The GOC Development Program

The government's development program consists of the ongoing operations of the key development ministries, including the Ministries of Rural Development, Education, Health, and Public Works, and of the autonomous development organisms, such as SODELAC, OMVSD, ONADEH, SOTERA, and OFNAR. The GOC-funded activities of these public sector organizations are largely administrative and do not have much development impact. Most of their development programs are in the investment budget, which is funded entirely by donors.

In 1988 and 1989, expenditures under the investment budget totalled about 60 billion CFAF per year, compared to an annual recurrent budget of 40 billion CFAF. The sectoral allocation was 28 percent transport, 23 percent agriculture, and 20 percent human resource development, mostly for education and health care. Although the overall priorities of the development program are jointly set by the GOC and donors, and are spelled out in the GOC *Plan d'Orientation* prepared by the Ministry of Plan, the specific activities that make up the investment plan were selected and designed by the funding sources — that is, the donors.

The most important initiatives are rehabilitation of the primary road network and rehabilitation of the education sector. These are priority areas that had been deteriorating seriously since 1979. Road rehabilitation is being funded mostly by the World Bank, Italy, ADB, USAID, FAC, FED, and Germany, with more than $400 million obligated since 1987.

In the agriculture sector, the most concentrated effort has been rehabilitation of the cotton industry. The total cost has exceeded $100 million, financed mainly by the CCCE, the World Bank, and the ADB.

Other than cotton, crop production projects are implemented largely through the Office National de Développement Rural (ONDR) and are increasingly addressing marketing as well as production constraints. Their emphasis is on extending new technologies and practices, creating and strengthening farmer organizations, and creating more effective private and public sector supporting services. Several projects have rural road components. The two geographic areas of focus are the Sudanese zone and the Lake region. The World Bank has recently initiated the design of an agricultural research project to complement the production and marketing projects being financed by other donors. Most of the multilateral and bilateral donors in Chad are active in the agriculture sector, including USAID, FAC, FED, and the UNDP/FAO.

There are numerous ongoing projects aimed at increasing livestock production. The major donor in the livestock sector is the World Bank, which is supporting policy reforms as well as strengthening extension, animal health, and marketing programs. Other important donors are the African Development Bank and the EEC.

There are also large donor-funded programs in education and health. In education, the stated focus is on primary and secondary education, but most of the funding is budget support for the Ministry of Education, teacher training, and construction of institutions of higher learning. France is the largest donor, with important support also coming from other European countries, the World Bank, and ADB. In health, most of the projects are for primary health care, but the majority of funding is to improve hospital facilities in the major cities. The largest donor is France, with important support also coming from Italy, the EEC, and UNICEF.

THE USAID DEVELOPMENT PROGRAM

Chad is the recipient of large amounts of foreign aid across all economic and social sectors. A.I.D. is one of the major donors. In general, the issue for Chad is not whether there are important development problems not being addressed, but whether aid levels are exceeding the absorptive capacity of certain sectors.

Chad's priority development needs at this time are:

- Rehabilitation and maintenance of the primary road network;
- Rehabilitation of the primary and secondary education system;
- Increased productivity and improved marketing in the agriculture and livestock sectors; and
- Rehabilitation of the health care system, especially in rural areas.

In this context, **A.I.D.'s overall development goal is to improve the quality of life of Chadians in a context of sustained market-oriented and broad-based economic growth.** The strategy for achieving this goal is to focus on two overall objectives:

Strategic Objective 1: Increase the efficiency of the agricultural marketing system. Measurable indicators of progress in achieving this objective are:

- Marketing costs will be lower;
- Seasonal price fluctuations and price differences between regions will be reduced;
- Price differences over time and space will closely reflect marketing costs;
- Consumer prices will be reduced;
- Farmer incomes from marketed agricultural products will be increased;

- The delivered cost of Chadian products in the markets of neighboring countries will be lower; and

- Chad's agricultural exports will be higher.

The A.I.D. program to achieve this overall objective has four elements. The first is the Road Rehabilitation Project, at $33 million, A.I.D.'s largest project. It is part of a larger multidonor-funded Transport Sector Adjustment Program. The purpose of the A.I.D. project is to strengthen the National Roads Office's (OFNAR) capacity to maintain the road system in the densely populated area in the western part of the country stretching from the Lake region south to Lai. Other donors are supporting OFNAR in other regions of the country. In the final stages, the emphasis is shifting to strengthening private sector maintenance capacity with OFNAR acting as a contracting agent for government.

The second element is the PVO Development Initiatives Project (PVO/DIP). This consists of small-scale activities being implemented by four PVOs in different regions of the country. These projects have concentrated on introducing new technologies; providing credit for producing, marketing, and processing agricultural products; and organizing farmers for marketing, savings mobilization, and community development. In 1990, this project was redesigned to increase the focus on increasing farmer incomes through increased marketed production. These PVO activities complement other agricultural extension programs being implemented by other NGOs and by ONDR with donor funding, but with a stronger focus on marketing. One activity also being implemented by ORT is testing what appears to be an affordable extension methodology for Chad, using unpaid demonstration farmers at the village level.

The third element is the recently approved Agricultural Marketing and Technology Transfer (AMTT) project. AMTT will address three key agricultural marketing constraints: the lack of market information; the inability to identify and finance viable investment projects in agribusiness; and the lack of data and analysis needed for agricultural policy formulation.

The fourth element is the Agricultural Trade Policy Reform Program (ATPRP) being proposed in this document. ATPRP will focus on improving the policy environment for more efficient agricultural marketing by the private sector.

Annex B provides a comprehensive analysis of the constraints to the improved performance of the agricultural marketing system in Chad. The analysis confirms that, before significant sustained increases in agricultural production can be achieved, increased efficiency is needed at several levels of the marketing chain, including production of marketable surpluses at the farm level, transportation costs, economies of scale in trading, and the increased ability to identify and develop export markets. The four elements of the A.I.D. program, combined with the activities of other donors, effectively address the full range of identified constraints.

Strategic Objective 2: Improve the health status of Chadian infants, children, and women of child-bearing age. Measurable indicators of progress in achieving this objective are:

- Reduced infant mortality rates;
- Reduced child mortality rates;
- Reduced maternal mortality rates; and
- An increased number of repeat visits to family planning centers.

This objective will be achieved through a Child and Maternal Survival Project and a possible Health Sector Policy Reform Program. A.I.D.'s activities will be concentrated in selected densely populated rural areas. The three areas of focus will be: improved maternal and child health care; increased family planning services; and improved health care management, including decentralization, increased cost recovery, improved statistics, and increased evaluation capacity.

SECTION THREE

CONSTRAINTS TO THE IMPROVED PERFORMANCE OF THE AGRICULTURAL MARKETING SYSTEM

THE EXISTING SITUATION

The level of development of an agricultural marketing system depends primarily on the volume of marketed surpluses. Where the volume is low, highly developed marketing systems are not necessary and, in fact, cannot be sustained. This is the situation in Chad.

The agricultural marketing system in Chad can be characterized as follows:

- **Low farmer productivity** limits the ability to produce marketable surpluses. Because of limited and unpredictable markets, high transport costs, and the high delivered cost of agricultural inputs, the increased income earned from the use of these inputs on most crops is generally less than their cost. As previously noted, the only major exception is cotton.

- Because of low purchasing power and the low volume of marketed surpluses, there is little effective demand for commercial **product transformation and processing**. This function is carried out mostly by farm or consuming households using traditional labor-intensive techniques. The weakness in this market function results in low product quality, high post-harvest losses, and minimal value added from agroprocessing.

- **Temporal arbitrage** takes place informally and involves all participants in the marketing system. Sorghum and millet are the major foodcrops traded. Farmers generally sell most of their marketable surpluses at harvest to meet cash needs, but attempt to keep small quantities to sell later at a higher price. After the initial large sale at harvest, women in the farm household are responsible for selling cereals a few *coros* at a time to meet daily cash needs until the next harvest. (The *coro* is a local unit of measure equivalent to about 2.5 kilos.)

  Small traders buy grain, typically in small quantities, and resell it as soon as possible, but they also store a small portion of their stocks in anticipation of seasonal price increases. Finally, middle-income urban dwellers store cereals in their homes (referred to as *stocks de quartiers*) as a means of earning income from seasonal price increases. Partly because the costs of this informal system of temporal arbitrage are so low, wholesalers have found it unprofitable to invest in the long-term storage of cereals.

- An analysis of cereal prices shows that **spatial arbitrage** in Chad is efficient over short distances (see Annex D). The largest market for agricultural products, N'Djamena, is supplied mostly from within a 200-kilometer radius. Outside this area, most of the marketed surpluses are traded in small quantities, transported over short distances, and consumed in the regions where they are grown. Over longer distances, the price margins can vary considerably from marketing costs. This is characteristic of "thin markets." The time of year, the condition of the roads, and the availability of trucks are some factors that can affect the movement of goods in response to price differences.

- The periodic inconsistencies between interregional price spreads and marketing costs indicate some shortcomings in the ability of the system to identify and respond to market conditions in a timely manner. More important, there is a general inability to **identify and develop export markets**. This is directly related to the informal nature of the export trade. Traders in the informal sector export small quantities to small markets close to Chad's borders. They do not have the information or the capacity to supply the larger, more distant markets within the broader central and west African region.

Although the key agricultural marketing functions in Chad are performed relatively efficiently in the context of the country's size, climate, and overall level of development, and a more developed market system could not be justified at present levels of marketed production, the marketing system presents important constraints to increased agricultural production. These must be addressed if there is to be any significant improvement in the incomes and quality of life of rural households.

CRITICAL CONSTRAINTS

The constraints analysis presented in Annex B concludes that the four binding constraints to increasing the production of marketed surpluses and bringing the agricultural marketing system to the next level of development are:

- Low farmer productivity;
- An inadequate road system;
- Policies and regulations that increase marketing costs and discourage formal sector participation in agricultural marketing; and
- Limited markets for Chadian agricultural products.

Addressing these constraints in a coordinated manner and with equal priority will result in sustained increases in marketed agricultural production. If one or more of these constraints are neglected, sustained significant increases in the production of agricultural surpluses will not be possible.

Farmer Productivity

As individual smallholders, Chadian farmers are limited in their capacity to produce marketed surpluses because: (1) they must give top priority to minimizing risks; (2) they do not have the working capital to invest in productivity-increasing inputs and equipment; and (3) producing at the margin, they are unable to ensure the dependable source of supplies that many markets require. The most sustainable way to address these constraints is through the creation and strengthening of farmer organizations.

This situation calls for several interventions at the farm level. The first is to develop improvements in existing production technologies. This includes technologies for storage and post-harvest handling to reduce losses. Second, when economically viable uses of agricultural inputs are identified, ways of alleviating the working capital constraint need to be developed. This will involve forming farmer groups. Third, farmers will require support to increase their commercial orientation and market responsiveness. This will also involve farmer organizations.

Agricultural Extension

Increasing farmer productivity will require strengthening of agricultural extension activities. Sustained improvements in this regard will require restructuring the Ministry of Rural Development (MDR) extension program away from broad nationwide coverage across a wide range of crops toward activities that are more focused and cost-effective. Given the MDR's limited resources and the limitations of government extension programs, an increased role for NGOs will also be necessary. NGOs can be expected to play a particularly important role in creating farmer organizations.

For the foreseeable future, increasing the productivity and market orientation of Chadian farmers will be achieved primarily through donor-funded development projects. A number of these are currently under way, mainly in the cotton zone, but also in other areas, including the region around Lake Chad. These projects are concentrating on the introduction of new production technologies, increased farm- and village-level storage, and the formation of farmer organizations for marketing and resource mobilization.

For these projects to have maximum impact on agricultural production, they will have to focus on crops that do not face serious marketing bottlenecks. This re-emphasizes the need to address the farmer productivity constraint as part of a broader program that includes all four elements listed above.

GOC Policy Toward Farmer Organizations

One of the major problems with respect to the effectiveness and long-term viability of farmer organizations is the legal and policy framework. The cooperative laws, dating from the 1960s, are outmoded and in need of major reform. These laws reflect the original purposes of cooperatives, which were to increase government control over farmer production and facilitate delivery of support services, especially delivery of inputs for cash crop production. Cooperatives were not formed by farmers to further their own objectives.

The present cooperative structure is under the Direction of Cooperatives in the Ministry of Commerce. This program is largely urban-based, limited primarily to activities around N'Djamena, and lacks the human and financial resources to promote rural organizational development. The Direction of Cooperatives, with ILO support, is redefining cooperative policy, including strategies for promoting cooperatives or other types of farmer organizations in rural areas.

ONDR has also recently proposed a set of regulations that would define rural groups as voluntary organizations of producers or consumers for social or economic purposes. To be legally recognized, the only requirement is that the rural organization be approved by the local administrative authorities.

The ONDR initiative is a step in the right direction. Combined with the revision of cooperative laws and policies, it will make it easier for farmers to form their own organizations at their own initiative, for their own purposes.

The Road System

The condition of the roads is the largest factor in the cost of marketing agricultural products. The cost of transportation on laterite roads is one-half the cost of transportation on unimproved dirt roads, and one-fourth the cost of transporting goods from villages along paths normally used by people and animals. These cost differentials increase the delivered cost of agricultural products to Chadian consumers and reduce the competitiveness of Chadian products in export markets.

The ongoing road rehabilitation program will greatly reduce transport cost and will make a tremendous difference in the cost of marketing agricultural products. Roads in Chad are currently at close to optimal condition, from the standpoint of likely traffic levels and funds available for maintenance. Further improvements will be difficult because of the low traffic flows in most rural areas. For this reason, increases in the production of agricultural surpluses will be concentrated initially in the areas served by primary roads.

The GOC and donors both recognize that, in the long run, as markets expand and new production possibilities are identified, roads will have to be constructed in new areas. This will happen first in the Sudanese zone, where production potential is highest, and to some extent in the Lake region. Most of the Sahelian zone has a low crop-production potential and will continue to be poorly served by roads. Agriculture in most of this area can be expected to remain at the subsistence level, with cash income coming primarily from livestock.

The key to continued increases in marketed production is maintenance of the road network. If these roads are allowed to deteriorate, the flow of goods to domestic markets will decline, delivered costs will increase, and farmers will be unable to compete in export markets. For primary roads, it is important that the fuel tax continue to be earmarked for the road fund. At the same time, the efficiency of road maintenance must continue to be increased by using private sector contractors and strengthening OFNAR's contract management capabilities. A.I.D. and the World Bank are addressing both of these issues.

For rural roads, adequate maintenance is possible only if local resources to cover part of the cost can be generated. Means of doing this, including contracting with village organizations to maintain specific stretches of road, are being explored by A.I.D. as part of the road rehabilitation project.

The Policy Environment for Agricultural Marketing

Government policies directly affect only the formal sector. The large informal sector, which functions outside the policy framework, accounts for much of the value added in the economy and provides jobs and incomes for the majority of Chadians. It is in the informal sector that most agricultural marketing takes place. There are, at present, few perceived advantages to operating in the formal sector, and competition from the informal sector is great.

However, increasing production of marketed surpluses will require moving the agricultural marketing system to a higher level of development. Higher-volume trucking, better and more timely market information, improved market facilities and technology, formal credit, better quality control, and additional processing and transformation capacity all require a scale of activity and level of sophistication that small-scale informal sector enterprises cannot provide. Therefore, improving the policy environment for agricultural marketing means making the formal sector more competitive — and making it more attractive (or less expensive) for informal sector businesses to move into the formal sector.

Three policy reforms that would improve the policy environment for agricultural marketing are reduction of taxes on imports of trucks and spare parts, elimination of taxes on imports of agricultural inputs, and elimination of export taxes on agricultural products.

The Import Duty on Trucks and Spare Parts

Import duties on trucks and spare parts range from 37 to 49 percent. Available data indicate that, when paid, these taxes increase the cost of transporting agricultural products by 10 to 15 percent. This increases domestic consumer prices and reduces Chad's competitiveness in export markets.

Changes being considered by the regional customs union, UDEAC, could make this situation even worse (see Annex A for a comprehensive discussion of UDEAC.) The restructuring of UDEAC tariffs currently under way proposes increasing the tax on trucks and spare parts to 81 percent (a 70 percent import duty and an 11 percent turnover tax). This increase results from trucks being grouped with personal vehicles as luxury consumer goods. The import duty on capital goods will be 15 percent.

The required policy action is to shift trucks and spare parts from the luxury to the capital equipment category and to waive the turnover tax. If waiver is not possible, the minimum action would be to transfer trucks from the consumer goods to the capital goods category. The case for placing trucks in the capital goods category is obvious. The case for requesting the waiver is that Chad's long-term development is dependent on agricultural exports and, as a large landlocked country with high road-transport costs, any measure that increases these costs seriously affects its competitiveness in neighboring countries and in world markets.

Import Duties on Agricultural Inputs

Duties on agricultural inputs range from 5 percent for urea and 7.5 percent for phosphates to 50 percent for agricultural tools. The duty on tools is to protect the domestic industry, the Société Industrielle de Materiel Agricole (SIMAT), which manufactures agricultural equipment. This parastatal is about to be privatized, but there has been no change in the import duties.

Under the proposed UDEAC restructuring, agricultural inputs and equipment would be categorized as intermediate goods and capital equipment. The required policy action is to recategorize agricultural inputs and equipment used by small farmers as basic goods (*biens de première necessité*) and waive the 11 percent turnover tax. The economic case for this change is that agricultural productivity in Chad is extremely low; any tax on inputs becomes a disincentive for small farmers to invest in productivity-increasing technologies. For a country that is barely self-sufficient in food and whose long-term growth and development depend on exporting agricultural products, this sort of tax is clearly inappropriate.

Export Duties on Agricultural Products

Chad has an export tax on all agricultural exports except cotton. Although most non-cotton agricultural products are exported through unofficial channels and therefore do not pay taxes, the issue is important to Chad's long-term development. Chad's agricultural exports, including livestock, vary little from products exported by other countries. With markets highly sensitive to price, any increase in price eventually results in lost market share.

The most significant initial impact of this measure will be to reduce transaction costs associated with informal sector (illegal) trading but, as the economy develops, the impact will be to make formal sector agricultural exports more competitive. The effect of the present tax is to keep Chad's major long-term growth sector in the informal sector. This effectively limits Chad's development potential, with negative effects evident even in the short term.

The export-licensing process is also a constraint. At present, these licenses can be issued only in N'Djamena and are valid only for a specified volume of a single commodity. A strong case could be made for doing away with the export license altogether. Not only is it time-consuming to obtain a license for each commodity, but the exporter correctly expects that copies of his export license will be sent to other tax authorities. Short of discontinuing the export license altogether, exporters should at least be able to obtain one license that would cover all commodities that they export.

Limited Markets for Increased Agricultural Production

The domestic market for agricultural products is limited by the small size and low purchasing power of the urban population and the low price elasticity of demand for basic goods. The key to addressing this issue is to develop export markets. If sizable export markets for Chad's agricultural products cannot be developed, significant increases in agricultural production cannot be maintained.

The markets in Europe and those in countries neighboring Chad are extremely competitive. Chad has clear comparative advantages in livestock, skins and hides, fish, and gum arabic. The marketing channels for these products are well established, mostly but not entirely in the informal sector. The export trade for other agricultural products, including peanuts, cowpeas, and vegetables, is carried out on a small scale under very competitive conditions, in markets close to Chad's borders.

At present, most Chadian agricultural products are not competitive in the major Nigerian and Cameroonian markets. However, per capita incomes in Cameroon and in Nigeria are five and ten times higher than in Chad, respectively. Cameroonian farmers have already begun producing sizable quantities for the profitable Nigerian markets. Chadian farmers could also produce for these markets once effective market links have been established. However, in these competitive markets, it will be necessary to move the export trade gradually out of the informal sector into the formal sector, where long-term dependable, but also visible and legal, relationships between buyers and sellers can be established.

Formal sector businesses can be expected to become more active participants in export trade as the policy environment improves and as improved roads and lower taxes on transport equipment reduce marketing costs and increase the competitiveness of Chadian products in the larger regional markets. However, they need to become better informed about these markets which have not traditionally been supplied from Chad. For the improved policy environment to have its maximum impact, the GOC and donors will have to initiate new programs to advise the private sector on export markets that can be profitably supplied through formal sector channels.

The larger businesses already in the formal sector should be the first targets of this new initiative, but the emphasis should quickly move to those traders in the informal sector who could shift into the formal sector with management and marketing help. As in all government programs which seek to increase agricultural production and marketing, it is important that specific interventions be based on previously identified markets, building on small-scale informal sector trade. Government programs can rarely create new markets, although they can help strengthen growth trends once they are under way.

CONCLUSION: ACTIONS APPROPRIATE FOR ATPRP SUPPORT

The actions required to address the above constraints are:

- Market-oriented agricultural extension projects;
- Road construction projects and a cost-effective GOC road maintenance program;
- Lower tariffs that are disincentives to agricultural production and marketing; and
- Government support to the formal sector for identifying and developing export markets for agricultural products.

SECTION FOUR

PROGRAM DESCRIPTION

The nonproject assistance provided under the ATPRP will support trade policy reforms that lower agricultural marketing costs. More specifically, ATPRP budget support will be provided in support of reducing import duties on trucks and spare parts and on agricultural inputs and eliminating export taxes on agricultural products. The main thrust of the ATPRP-supported policy reforms is to improve the policy environment for agricultural export marketing. The ATPRP will include a project component to strengthen private sector capacity to identify and develop export markets for agricultural products. This is intended to expedite and increase the impact of the policy reforms.

THE PROGRAM GOAL

The development goal to which this program contributes is the improved quality of life of the rural population through sustained and broad-based market-oriented growth in agricultural production. The focus is on the marketed production of agricultural crops other than cotton. At the aggregate level, one key indicator of goal achievement will be increases in agricultural exports. Increases in production for domestic markets will be limited due to the limited purchasing power of Chadian consumers. Other indicators of program impact at the goal level will be increased farmer incomes, increased value added and employment in agricultural marketing, and lower consumer prices. Not all of these will be measurable at the aggregate level before the end of the program. The initial impact will be at the local level, in response to new markets and improved marketing performance.

There are three key assumptions for achieving the program goal. The first is that there are export markets where Chadian products can be competitive that are large enough to absorb sustained increases in marketable surpluses. The second assumption is that the production systems of Chadian farmers can produce dependable supplies of agricultural products for relatively large, established markets. This requires a commitment and a willingness to take risks that may be inconsistent with the priorities of Chadian farm households living close to subsistence level. The third is that the primary road network continues to be adequately maintained. These issues are analyzed in annexes to this document, and the conclusions are summarized in the feasibility analysis section.

THE PROGRAM PURPOSE

The program purpose is to increase the efficiency of the agricultural marketing system for non-industrial crops. Increased efficiency shows up in lower marketing costs. These consist of production; storage; handling at each stage of the marketing chain; product transformation; transportation; and returns to traders for labor, risk, and the use of working capital. Increased marketing efficiency will be measured by the reduction in the total of these costs for major crops marketed.

The measures of purpose achievement are:

- Reduced marketing costs, resulting mainly from lower taxes on trucks and spare parts, reduced export taxes, and increased efficiency resulting from the increased role of the formal sector;

- Lower consumer prices, with magnitude depending on elasticity; and

- Lower delivered cost of selected agricultural exports.

The magnitude of these results cannot be predicted precisely because they will occur as private sector participants — farmers, wholesalers, transporters, and exporters — respond to changes in the policy environment. The initial impact will occur in the small formal sector, which will benefit mainly from lower taxes and projectized assistance in identifying and developing export markets. As the formal sector grows, changes in the indicators will be measurable, but because some of the most important policy changes, such as elimination of the agricultural export tax, may not take place until the second or third year, the impact will not occur until after the end of the program. Impact estimates will have to be extrapolated from individual responses to the changing conditions. . .

There are important assumptions that must be met for program interventions to achieve the stated purpose.

The first assumption is that participants in the agricultural marketing system will move into the formal sector. This implies that there are economic benefits to moving from the informal to the formal sector as a result of either economies of scale or increased access to larger markets, and that the remaining disincentives to moving into the formal sector — especially taxes — are not perceived as excessively onerous.

The second assumption is that there are improved technologies available that provide adequate returns to the farmer with acceptable risks. A related issue is whether the private sector will have the capacity to provide adequate supplies of productivity-increasing agricultural inputs and equipment in a timely and reliable manner.

The third assumption is that Chad has a comparative advantage in some agricultural products — most important in neighboring countries, but also potentially in Europe. Finally, for the benefits of policy change to be sustainable, it is important that the private sector be willing and able to identify and support sound policies conducive to market-led development of the agricultural marketing system.

These issues are addressed in the feasibility analysis section.

PROGRAM OUTPUTS

The Policy Reform Component

The policy reform component will have three outputs:

- **A 10 percent reduction in the cost of road transportation as a result of the reduction of import taxes on trucks and spare parts.** The import taxes will be reduced by April 1992 when the UDEAC countries approve the restructuring of import tariffs. This restructuring will include the transfer of trucks and spare parts from the high-tax luxury category to the moderately taxed capital goods category. The impact on transport costs will occur gradually as the transport sector benefits form the lower cost of trucks and spare parts.

- **A 30 percent reduction in the cost of agricultural equipment and a 12 percent reduction in the cost of inputs imported by the private sector as a result of the reduction in the import tax on agricultural equipment and inputs.** The first step in achieving this output, which will take place in April 1992, will be the transfer of agricultural equipment and inputs from the capital goods to the basic goods category. This will lower the import duty from 15 percent to 5 percent. The next step will be the unilateral action by the GOC to exempt these items from the 11 percent turnover tax on imports. This will take place before the disbursement of the first tranche of budget support.

- **Reduced transaction costs related to the export of agricultural products as a result of eliminating export taxes and simplifying the export license procedure for agricultural products.** This action can be taken unilaterally by the GOC. Prior to disbursement of the first tranche, the GOC will approve the Scope of Work (SOW) for a study to assess the economic benefits of removing this tax and identify any negative considerations. If the results of the study are positive, the GOC will remove the export tax on agricultural products, including livestock, before the disbursement of the second tranche. Also, the export licensing procedure will be decentralized and expedited, and a SOW to study further simplification and possible elimination of the License will be approved by the Ministry of Commerce prior to the first tranche. The findings of the study will be implemented prior to the second tranche.

The Project Component

There will be three project subcomponents.

The Export Marketing Subcomponent

The policy reforms supported by this program will improve the business climate for agricultural marketing. The design of this program is based on the recognition that the Chadian economy is very small and can achieve sustained growth only in the context of the broader Central and West African region.

As previously discussed, most of the trade with neighboring countries is carried out by informal sector businesses selling to markets located close to Chad's borders. However, some products are sold in relatively distant markets, including Maiduguri, Bangui, and Brazzaville. There are also small, and declining, quantities exported to Europe. There is, therefore, a small agricultural export base on which to build, but it is clear that Chad's market share in neighboring countries will not be increased easily. The effort will require the increased involvement of formal sector agribusinesses acting in response to profit opportunities in an open market environment.

The objective of the export marketing subcomponent is to expedite this process. The subcomponent, which is described in detail in Annex C, will have the following outputs:

- Identification of new export markets for specific crops, along with an assessment of the production potential for those crops and the marketing system needed to meet the needs and expectations of the identified markets.

- Improved understanding of the post-harvest handling, processing, quality control, and distribution systems needed to supply new and larger export markets.

- Increased capacity in the formal private sector to advocate policies that support increased exports of agricultural products.

The first major activity under this subcomponent will be a study to provide an overview of export trade. This is necessary because exports of agricultural products are mostly in the informal sector and therefore unrecorded. Available information indicates that this trade is substantial, but detailed data are lacking on the size, location, and nature of the markets; and on factors that affect the level of activity.

The study will:

- Identify agricultural commodities being exported, including volume, destination, and pricing information;

- Analyze the efficiency and competitiveness of the marketing functions involved, including transportation, storage, processing and transformation, packaging, quality control, and distribution systems;

- Analyze the demand side — clients' needs and expectations, international prices and competition from other exporting countries, and special conditions relative to the export of specific commodities;

- Research and analyze the comparative advantages in place that support commercializing agricultural export commodities; and

- Propose actions and strategies for better coordination by the public and private sectors to improve agricultural export marketing.

Based on the findings and recommendations of this study, four agricultural commodity groups will be selected for more intensive study. The criteria for choosing the commodities to study will include potential importance to the economy, apparent comparative advantages, acceptable levels of risk for producers, requirements for supporting infrastructure, and services that are consistent with likely conditions in Chad for the foreseeable future. The objective of these studies will be to provide the private sector with the information needed to supply new export markets at levels significantly higher than could be achieved through informal channels.

The commodity studies will each be followed up by a seminar for the public and private sectors. The seminars will be designed to encourage dialogue between the public and private sectors and develop strategies to increase exports of the commodity group studied.

Project staff will assist in linking identified markets with production areas, including coordination the extension services, existing donor and NGO projects, and suppliers of inputs and post-harvest handling and processing technologies.

Through the ATPRP-supported policy reforms and increased market liberalization, the incentives for agribusinesses to respond to market demand will have been increased. The additional support provided under this subcomponent will make it possible for the policy reforms to have a measurable impact on agricultural exports before the end of the program.

The Subcomponent on Policy-Related Studies

The first activity to be funded under this subcomponent will be a study of the economic impact of the export duty on agricultural products. The PAIP analysis found that the export tax significantly reduces Chad's competitiveness in neighboring countries and helps force export trade into the informal sector. These taxes have been in existence since before independence, and are seen by some elements of the GOC as an important potential source of revenue, as well as a means of maintaining low domestic prices for locally produced agricultural products. Before this tax is removed, a study is needed to analyze its impact on the economy.

The study will consider the following commodities: livestock, fish, peanuts, cowpeas, gum arabic, and a few selected vegetables. The study will cover not only Chad, but also Nigeria, Cameroon, and CAR, to assess market conditions (evolution in Chadian market share, demand sensitivity to price, product differentiation by origin, costs of official trade versus costs of smuggling, exchange rate effects on competitiveness, and so forth). Finally, the study will determine the revenue effects on the Chadian government of reducing or eliminating export taxes, and will obtain a qualitative idea of how private sector participants would be likely to use the income saved from lower taxes and illegal transactions costs (that is, the potential investment multiplier effect).

This subcomponent will also fund other policy-related studies. A major information gap regarding the potential for increased production of marketable surpluses concerns the situation at the farm level. Most agricultural production is for subsistence, but there is also considerable diversification in the farmer's production system and sources of cash income. The nature of this diversification varies by region, but in all cases it is important in determining what additional marketed surpluses can be produced.

Studies exist that describe and analyze production systems in specific locations. Most of these are not in-depth studies, and most date back to the early 1980s or earlier, but they provide some indication of the farm-level decision-making process. Despite the critical importance of cereals for home consumption, for instance, many farmers are intentional net purchasers of cereals. They choose, instead, to produce other crops or carry out other economic activities to generate cash, some of which is used to meet part of their cereal needs. In the south, cotton is the predominant cash crop, but the findings of some studies indicate that many farmers in the area have widely diversified sources of income.

There is, therefore, a considerable level of economic activity in the rural areas. This needs to be analyzed so the agricultural marketing interventions can build on the existing base. Examples of studies that will be carried out under this component are:

Rural Household Food Security Strategies. Although there is considerable anecdotal evidence that Chadian farmers seek to diversify sources of income, no serious analysis has been carried out on rural household food security strategies in Chad. Yet knowledge of these is critical for obtaining a better appreciation of farmer production strategies. Using rapid reconnaissance techniques, a study team of three (agricultural economist, anthropologist, and agronomist) will interview farmers in the Sudanese Zone, the Sahelian Zone, and the Lake region, to:

- Assess the degree of farmer income diversification in terms of crops, livestock, and non-farm activity;

- Identify farmer crop and livestock buying, selling, and investment strategies, both within and between years;

- Develop cropping calendars (including gender division of labor) for different farm types, in an effort to identify critical bottleneck periods that influence food security strategies;

- Identify key constraints to increased household food security, and policy- and project-level means of relieving some of these; and

- Provide recommendations on further areas of study.

Legume Crop Production and Marketing. According to official GOC statistics, Chadian farmers produced more than 120,000 tons of peanuts and more than 60,000 tons of other leguminous crops in 1989-1990. There is also a great deal of anecdotal evidence that Chadian exports of peanuts to neighboring countries are substantial. It is clear that these crops play an important role in Sahelian and Sudanese farmer food security strategies as cash crops, nutritious food crops, or both. With little known about this subsector, a study is needed to determine its potential and identify appropriate interventions. Specifically, the study would address the following issues:

- What is the current structure of peanut and other leguminous crop production, processing, and marketing in the most important producing and consuming regions of Chad?

- What is the approximate volume of trade with neighboring countries (Nigeria, Cameroon, CAR, Sudan) of peanuts and other legumes?

- What role do peanuts and other leguminous crops play in Sahelian and Sudanese farmer food-security strategies?

- What are key constraints to expanding production, marketing, and trade of peanuts and other legumes?

- What appropriate roles could the GOC and donors play in increasing the productivity and efficiency of this subsector?

The study would be undertaken over a two to three-month period, and would be supervised by a two-person team comprising an agricultural economist and an agronomist. Chadian counterparts would be seconded by the Ministry of Rural Development. The study would involve extensive field work in several regions of Chad, as well as in neighboring countries where Chadian peanuts are currently exported.

Potential for Development of Private Agricultural Input Delivery Systems. There is virtually no private sector participation in agricultural input marketing. Delivery systems are dominated by COTONTCHAD in the south and by donor projects elsewhere in the country. Yet one prerequisite for advancing from a low productivity, semi-subsistence stage of agricultural development to a higher-productivity, more commercially-based stage is the sustainable delivery of improved inputs (seed, fertilizer, and tools). While such a transition is necessary if Chad is to meet the food needs of a fast-growing and increasingly urban population into the next century, identifying effective strategies for encouraging greater private sector involvement is exceedingly complex. The objectives of a study on the potential for developing private agricultural input delivery systems would be to:

- Assess current and potential demand for agricultural inputs at the farm level in the Sudanese and Sahelian zones;
- Identify the most important constraints to greater private sector involvement in input distribution;
- Examine the sustainability and effectiveness of COTONTCHAD's input delivery system in the Sudanese Zone;
- Drawing on experience from other countries and interviews with Chadian businessmen, assess the capacity of the Chadian private sector to take on a more prominent role in input distribution;
- Lay out a strategic framework for encouraging greater private sector participation on input marketing. This would include discussion of the proper role of the state and donors (including the role of subsidies) in facilitating such an evolution.

This study would require the participation of an agricultural economist with extensive experience in input marketing in Sub-Saharan Africa and a private sector development specialist. The approximate level of effort would be one month for each short-term consultant. Depending on the interests of the GOC and USAID, the study focus may remain broad (inputs in general) or more narrow, keying on only one or two input categories.

The Impact Monitoring Subcomponent

The cost-benefit analysis shows that there will be two types of economic benefits that will result from program activities that can be translated into people-level impact: benefits stemming directly from program activities and indirect benefits stemming from an improved policy environment.

There are two activities that will have direct benefits: the removal of the tax on trucks and spare parts and the export marketing project. The first will lower the cost of transportation, which should translate immediately into lower transport costs. The people-level impact will consist of higher producer prices, lower consumer prices, and increased effective demand for some products. The second will result in increased agricultural exports that otherwise would not have occurred. This will be traceable to increased production of agricultural surpluses and increased cash incomes.

The impact of all other interventions is limited by the small size of the formal sector affected by the policies. The impact will occur, not as a result of a project activity, but as a result of the formal sector doing things that it is not doing now, that is, importing agricultural inputs and selling them to farmers, and exporting agricultural products that could not be competitively exported by the informal sector. This behavior change, and its people-level impact, will not be easy to predict or measure.

The key will be to determine what people-level changes have happened specifically as a result of program interventions, including the changes in the policy environment. This requires a determination of where and what type of people-level impact is expected. In some cases the impact will be local; in others, national. On the basis of this determination, the impact indicators are identified, baseline data are gathered, and changes in the indicators are monitored.

The nature of the benefits to be obtained from the ATPRP are discussed in the Economic Analysis section, and the methodology to be used in monitoring people-level impact of these benefits is described in the Monitoring and Evaluation Plan.

Short-term technical assistance will be used to implement the impact-monitoring activity. The first step will be identifying impact indicators to be monitored and setting up collection of the baseline data. This will be done during an initial six-week consultancy early in the first year. Local staff will be recruited to collect the data.

The next stage will be monitoring the indicators. This will involve: (1) a study of vehicle-operating costs in coordination with the Road Rehabilitation Project, (2) two two-week surveys per year to monitor changes in trader behavior, an (3) at least two in-depth commodity studies, at the end of Year 3 or the beginning of Year 4, to determine goal-level and people-level impact. The methodology for the commodity studies is described in the Monitoring and Evaluation Plan. Each commodity study will require a two-person team for two months.

PROGRAM INPUTS

The USAID inputs for the policy reform component will consist of budget support to the GOC, to be disbursed over three years. The budget support will be designated for MDR salaries. Each disbursement will be associated with specific policy actions agreed upon by USAID and the GOC.

The inputs for the projectized components will consist primarily of:

- A long-term agricultural export marketing advisor for 3.5 years;
- A project manager under a 3.5-year personal services contract;
- 24 person-months of short-term technical assistance to carry out export marketing studies and conduct workshops;
- 24 person-months of short-term technical assistance to carry out production studies;

- 12 person-months of short-term technical assistance to design and help implement the impact monitoring system;

- Local salaries for counterparts for the short-term advisors under the three project subcomponents;

- Local costs of studies, workshops, and training sessions; and

- Equipment and supplies for the long-term export marketing advisor, including a vehicle, personal computer, and other office equipment.

SECTION FIVE

THE FINANCIAL PLAN

THE PROGRAM BUDGET

The ATPRP budget is summarized in Tables 1 and 2. Annex C provides the detailed budget for the Export Marketing Subcomponent.

TABLE 1

ATPRP BUDGET
BY COMPONENT

Category	Year 1	Year 2	Year 3	Year 4	TOTAL
Policy Reforms	3,000.0	3,000.0	3,000.0		9,000.0
Project Component					
Export Marketing	1,099.0	1,031.3	816.0	553.1	3,499.4
Policy-rel. Studies	120.0	120.0	60.0	60.0	360.0
Impact Monitoring	60.0	60.0	60.0	30.0	210.0
Program Management	274.0	239.0	169.0	159.5	841.5
SUBTOTAL	4,553.0	4,450.3	4,105.0	802.6	13,910.9
Inflation (5%)	52.6	116.0	187.9	208.7	565.2
TOTAL	4,575.6	4,566.3	4,292.9	1,011.3	14,476.1

Notes:

Details for project management are shown in Table 2. Details for export marketing are presented in Annex C.

Policy studies: 6 p-m. per year @ $20,000/month.
Impact monitoring: 3 p-m. per year @ $20,000/month.
Inflation applies only to the project component and project management, not to budget support.

TABLE 2

ATPRP BUDGET
PROJECT MANAGEMENT
($ thousands)

Category	Year 1	Year 2	Year 3	Year 4	TOTAL
Technical Assistance					
Long-term					
Salary	65.0	65.0	65.0	35.0	230.0
Entitlements	100.0	75.0	75.0	40.0	290.0
HH furniture	25.0				20.0
Generator	15.0				15.0
Short-term					
Evaluations		50.0		50.0	100.0
Audits		20.0		20.0	40.0
Commodities & Equip.					
Computer	20.0				20.0
Other	20.0				20.0
Local Costs					
Local salaries					
Long-term	10.0	10.0	10.0	5.0	35.0
Other costs	19.0	19.0	19.0	9.5	66.5
TOTAL	274.0	239.0	169.0	159.5	841.5

Notes:

Long-term TA: PSC project manager
Entitlements: Includes travel to and from post, shipping of HH, R&R, home leave, and children's education.
Local salaries: One secretary.
Other costs: Mainly utilities for residence

THE FINANCIAL MANAGEMENT PLAN

ATPRP funds will be used for budget support to the GOC associated with policy reforms agreed upon; a personal services contract for project management; and a contract with a U.S. firm to provide technical assistance in export marketing, economic analysis, and impact monitoring. Funds for the personal services contract will be disbursed directly by the A.I.D. controller. The contractor will submit periodic documented requests for payment for services rendered. These requests for payment will be subject to normal A.I.D. review prior to payment, and the contract will be subject to normal A.I.D. audits.

The ATPRP cash transfers to the GOC will be managed using the Chad Model, described in Annex F, most recently used for the Strengthening Development Ministries Program (SDMP):

Disbursing the NPA Cash Transfer Assistance to the GOC

1) After the sector grant agreement has been signed by the GOC and A.I.D., and the conditions precedent spelled out in the agreement have been met by the GOC, the Controller will request RAMC/Paris to make a dollar disbursement of the current tranche.

2) RAMC/Paris uses those appropriated dollars to purchase French Francs (FF) on the open market, which are deposited to a USG-owned RAMC Conversion Account at a bank in Paris.

3) The FF are used to purchase CFAF (at 1 FF=50 CFAF) which are placed in a USG-owned RAMC bank account in Paris.

4) RAMC writes a check for the CFAF to the GOC Central Bank.

Depositing NPA Cash Transfer Assistance Funds into a Separate Account

The GOC Central Bank will place the CFAF in a separate, non-commingled, interest-bearing account at a commercial bank and supply the Controller with a receipt containing the check number, amount, and date of deposit.

Tracking NPA Cash Transfer Assistance Funds to their End Use

Under the Chad Model, because the CFAF are NPA cash transfer assistance funds, the programming mechanism for the LC provided must be tracked as rigorously as dollars. Since the GOC will use the funds to help alleviate budget deficits, the funds will be applied to one budget line item, MDR salaries. The ATPRP will follow the SDMP procedures for disbursements from and financial accountability for the separate accounts, with the following changes in line with RIG and USAID audit recommendations:

- The GOC will compare disbursements to budgets to ensure that they correspond.
- The GOC will submit monthly reports on separate account transactions with adequate supporting documentation.
- The GOC disbursement procedures will include procedures that provide an adequate audit trail to facilitate A.I.D./Chad verifications and external audits.
- The GOC will institute appropriate inventory controls for procured commodities.
- Formal reviews of separate account transactions will be carried out monthly by the ADO and CO to assure that all transactions are correct and adequately documented and that disbursements correspond to budgets.

The grant agreement will provide for periodic external audits similar to those satisfactorily carried out under previous cash transfer programs.

Since the Grant Agreement does not call for programming local currencies for specific development activities, there will be no tracking of funds beyond their disbursement for MDR salaries.

SECTION SIX

FEASIBILITY ANALYSES

ECONOMIC ANALYSIS

The ATPRP objective is to increase marketed agricultural production by increasing the efficiency of the agricultural marketing system. The ATPRP-supported measures for bringing this about are:

- Reducing the import duty on trucks and spare parts;
- Reducing the import duty on agricultural inputs;
- Removing all export duties on agricultural products; and
- Increasing the capacity of the private sector to identify and develop export markets.

This section will analyze the market and production constraints to increasing production of marketed surpluses, and will estimate the economic benefits to be derived from the ATPRP-funds measures. The full analysis is presented in the Economic Analysis Annex to this document (Annex D).

Market Analysis

This section deals with the markets for non-industrial crops, mostly cereals, but also including cassava, peanuts, fruits, and vegetables. Most of the marketed production of these products is for the domestic market. As discussed in the Constraints Analysis, this market is limited by the small size and low purchasing power of the urban population and by the low price elasticity of demand for basic foodcrops. It can therefore be expected that increased market efficiency will have some impact on domestic sales, but the major impact will be to lower consumer prices.

In the long run, most of the increased production will have to be based on increasing Chad's share of export markets. These can be divided into European markets and markets in countries neighboring Chad. Chad's traditional exports to Europe are gum arabic and hides and skins. More recently, that is, since independence, Chad has also exported small quantities of sesame, garlic, melons, and other minor crops. Exports of these products have been declining, largely because of production constraints and quality problems in Chad. Measures can be taken to reverse the declining trend, but achieving substantial positive growth in this market will be difficult.

One important advantage that should be exploited as soon as possible is the availability of empty cargo space on passenger planes returning to Europe. The rates on this space are very attractively priced to encourage their use, which should increase Chad's competitiveness for high-value crops.

The market in neighboring countries is more complex. The traditional products in which Chad has a comparative advantage are livestock and fish. These products will continue to dominate the export trade within the region. However, other agricultural products are also exported, including peanuts, cowpeas, onions, dried tomatoes, cereals, and miscellaneous fruits and vegetables. Since growing conditions in Chad are, on balance, less favorable than in neighboring countries for most of these products, there are no obvious and easy possibilities for rapid growth. The regional markets for these products are in fact extremely competitive.

However, changing conditions, especially in Nigeria and Cameroon, are creating new opportunities. As Nigeria industrializes, its market for agricultural products increases. These increases are very large, especially related to Chad's production capacity. At present, Cameroonian farmers are taking advantage of these changes by exporting their agricultural surpluses to Nigeria instead of selling them in southern Cameroon. In relative terms, Niger has benefited even more. In the past fifteen years, Nigeria has become the world's largest importer of cowpeas and Niger is its largest supplier. This has made cowpeas Niger's largest agricultural export after livestock.

As changing production patterns occur within the region, comparative advantages also change. Under the right conditions and policy framework, this shift in comparative advantage creates new export possibilities for Chadian products. Facilitating this process is the only strategy available to Chad for achieving sustained broad-based economic growth.

It can be expected that progress will occur initially in the products already being exported, notably peanuts, cowpeas, and various vegetables exported in small quantities to Nigeria, Cameroon, and CAR. Since most of the existing trade is in the informal sector and unrecorded, relatively little is known about existing markets. Obtaining more information will be an ATPRP priority early in the program. Using general orders of magnitude, if existing trade in these products equals 50,000 tons a year, doubling this level would have no measurable impact on Nigerian markets, but would have a major impact on cash incomes of Chadian farmers. The only issue is the ability of Chadian products to compete. This will be determined by the productivity of Chadian farmers, the cost of transport, and the efficiency of the Chadian marketing system.

Production Analysis

In terms of producing marketable surpluses, the country's three main production areas, the Sudanese zone, the Lake region, and the Sahelian zone, will be affected differently by the ATPRP interventions.

In the **Sudanese zone**, cotton is by far the largest cash crop. Farmers in this area also grow large quantities of sorghum, millet, and cassava for home consumption and for sale in the major urban areas, and livestock is an important part of their farming system, mainly for animal traction but also for asset diversification and additional income. The production possibilities in this area are the most conducive to crop diversification, but the farmers have a strong tendency to concentrate on cotton because of the vertically integrated production system that provides them with inputs at planting time and a guaranteed market for their crop at harvest time.

The process of diversification in this area will begin slowly as profitable markets are made known to farmers. Farm budget studies carried out by ONDR in recent years show that there are other crops, including millet, that in normal years provide higher returns to labor than cotton, even when no modern inputs are used. As the agricultural marketing system improves and dependable markets develop, farmers can be expected to respond.

The most obvious possibilities are the production of cereals for the urban areas, including N'Djamena, and the production of peanuts for the Nigerian, CAR, and Cameroonian markets. (Peanuts are already a major crop in the Sudanese zone, with production averaging well over 100,000 tons in recent years.) At first, the response to improved market conditions will be localized, based on relationships between farmers and traders. In the medium term, the response will not threaten cotton as the main cash crop, but the overall impact could be to increase total agricultural incomes in the area substantially. The studies subcomponent will include a study of diversification strategies in the cotton zone and what they imply for the impact of ATPRP measures on farmers and economic activity in this area.

The **Lake region** has obvious comparative advantages in producing agricultural surpluses for the Nigerian and N'Djamena markets. This has been recognized by the numerous donors who are implementing development projects in the area. The main export is fish, but there are also considerable exports of wheat, corn, and cowpeas.

Based on past trading patterns, agricultural production and trade in this area could be much higher. In 1990, members of the AMTT design team reported that cowpeas had been exported from the Ngouri area to Nigeria, but this was recently discontinued when the GOC prohibited exports of this crop. Studies have also shown that Chadian producers and traders lost market share to Nigerian fishermen and traders when the GOC started taxing fish exports in the 1970s. Similarly, recorded wheat trade dropped from 10,000 tons to nothing when SODELAC assumed control of exports in the early 1970s, offering prices one-half to one-third those offered by Kanuri traders from Maiduguri.[1] A more efficient marketing system in a policy environment that minimizes impediments to regional trade can be expected to have an especially positive impact in this obviously productive and diversified area.

The third major production area is the **Sahelian zone.** Agricultural production in this area consists of subsistence millet production, traditional livestock production (cattle and small ruminants), and production of minor cash crops, including peanuts and vegetables in the *ouaddis* during the dry season. Production systems in this area are diversified but close to subsistence, with almost no production of cash crops. The main source of cash income, livestock, is supplemented by off-farm economic activity, including earnings from migrant labor. Although there are serious production constraints in this area, ATPRP impact could be considerable because there is at present no cash crop equivalent to cotton in the south that would constitute an obstacle to diversifying into new markets. The most interesting possibilities would be peanuts, cowpeas, and off-season vegetable production, including onions and dried tomatoes, for domestic and export markets.

Cost-Benefit Analysis

The cost-benefit analysis is divided into the static economic benefits and the dynamic effects of the ATPRP measures. Almost all the static benefits accrue from reducing the import duties in trucks and spare parts. The reduced tax results in lower transportation costs.

The calculations in Annex D show that, if all taxes were paid, this ATPRP measure would result in a 20 percent drop in transport costs. Agricultural products account for 60 percent of total volume transported (10 percent cotton, and 50 percent all other crops). The 20 percent cost reduction applied only to agricultural products yields annual benefits of 12 billion CFAF. If it is assumed that only 25

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[1] See Harre, Igué, and Arditi, *Les Echanges Marchands entre le Tchad, le Nord Nigeria, et le Nord Cameroun*, CILSS, 1990, for an excellent analysis of traditional agricultural trade in the lake region, and the negative impact of government policies.

percent of total taxes due are ever paid, including what is paid illegally to government officials, the annual benefits drop to 3 billion CFAF per year. These benefits to the private sector are the result of a transfer from the government and the collectors of unofficial taxes. This transfer does not constitute a net economic benefit, except to the extent that the resources are utilized more productively in the private than in the public sector. This possibility is discussed further below.

The net direct economic benefits come from the increased transport activity generated by the increased demand for transport services as transport prices drop. Annex D estimates that the reduced duties will result in increased demand of four to five percent, or an estimated 580 million CFAF per year, with some lags as the impact of the measures on costs is felt throughout the transport sector. The cost-benefit analysis shows that if all program costs are applied to these benefits, the internal rate of return (IRR) is slightly negative.

However, if benefits of the tax measure to the total economy instead of only the agriculture sector are applied to program costs, the IRR becomes 2.2 percent. The analysis in Annex D further assumes that the use of resources is more productive in the private than in the government sector, where they are used entirely for consumption. If the investment multiplier in the private sector is 23 percent higher than in the government sector, which seems to be a conservative assumption, the IRR related to the reduced taxes on trucks and spare parts increases to 13 percent, using only the benefits related to transport of agricultural products.

The benefits of all other ATPRP measures are dynamic. That is, they will occur only as private sector behavior changes in response to the improved policy environment and the export market development initiative. These behavior changes will include:

- Increased imports of trucks and spare parts;
- Increased imports of agricultural inputs; and
- Increased exports of agricultural products.

The economic benefits of these changes in behavior will be:

- Reduced production costs resulting from increased farmer productivity;
- Reduced marketing costs resulting from an improved truck fleet, and reduced transaction costs and economies of scale associated with operating in the formal sector; and
- Increased value added in producing and marketing agricultural products.

Because it is impossible to predict the timing and magnitude of private sector behavior change in response to the ATPRP actions, the resulting benefit stream cannot be quantitatively measured. However, a closer look at each commodity likely to be affected by the policy changes could provide some orders of magnitude. This analysis will be carried out during the PAAD design. A 25,000-ton increase in the production of marketed surpluses could increase value added in agricultural production and marketing by $3 million per year. The IRR associated with this not unreasonable target would approach 50 percent.

SOCIAL ANALYSIS

Social Feasibility

There are no major social issues related to ATPRP implementation or achievement of ATPRP objectives. The institutional analysis discusses possible institutional resistance to some of the policy reforms, but no important obstacles have been identified.

Agricultural marketing within Chad and with neighboring countries is based to a large extent on long-standing ethnic relationships. These are mostly in the informal sector. As trade moves into the formal sector, these relationships remain, but, at that level of activity, other factors also determine how agricultural trade is conducted. Although it is difficult for new ethnic groups to move into certain trade channels, this does not seem to have an important impact on the degree of competition. The number of traders is large in all major commodity groups, and consequently, there is a high level of competition.

An issue that is not directly related to ATPRP interventions but could affect farm-level impact is the social feasibility of farmers organizing themselves for marketing purposes. This issue was addressed in the Social Analysis Annex to the AMTT Project Paper; the analysis found that most ethnic groups in Chad have strong group responsibilities, and individual behavior is often judged in terms of how it helps or hurts the group. This would indicate that social traditions in Chad are consistent with farmers organizing for some common purpose.

Social Impact

The benefits of ATPRP measures can be expected to spread throughout the Chadian population. The initial beneficiaries will be traders, who will benefit from lower marketing costs and new markets. These benefits will then spread to consumers through lower consumer prices. The products most likely to be affected are peanuts, cowpeas, cereals, and vegetables, primarily onions and tomatoes. These products are produced by traditional small farmers throughout the country. The farmers that are expected to feel the least initial impact are in the cotton zone — where there is already an established cash crop.

Women are expected to benefit mainly at the farm level as a result of new markets for their products. The AMTT social analysis found that women are important participants in marketing agricultural products, but men have considerable say in how cash income is utilized. Certainly, much of income is used to meet basic family needs, which are decided primarily by the women.

Women are also major participants in retail trade. In the markets that they studied, the AMTT design team found that 90 percent of retailers were women. ATPRP measures do not have a direct impact on retailing, but to the extent that retailers participate in an increased level of economic activity, they also join in the benefits. There are no social obstacles to some of the benefits of increased marketing efficiency being passed on to the many women who earn part of their income from retailing activities.

INSTITUTIONAL ANALYSIS

The objective of the ATPRP is to improve the policy environment for private sector agricultural marketing activities. The program raises three types of institutional issues: what is the institutional context and climate of policy reform; do the government institutions that are responsible for the reforms have the technical and administrative capacity to carry them out; and who are the institutional winners and losers, and how will this affect the implementation and impact of the reforms?

Institutional Context

At first glance, the institutional context would not seem to be propitious for effective and meaningful reform. First, the national government is very small, both in absolute terms and in relation to the size and diversity of the country. Government ministries do not have adequate human or financial resources to carry out their programs, and, more important, lack the analytical expertise to formulate sound policies. Second, the political uncertainty that has prevailed in Chad since the mid-1970s has not provided ideal conditions for effective policy change. In this context of political instability, there have been numerous and frequent government reorganizations, especially in recent years, and as recently as December 1991.

Implementation Capacity

In this overall context, the policy implementation capabilities of MDR, MOF, and to a lesser extent MOC, will be important to the accomplishment of ATPRP objectives. In the private sector, a key institution will be the Chambre Consulaire.

The Ministry of Rural Development

Although this ministry will not have a major role in implementing the policy reforms, it is the key ministry for advocating within government for policies in support of agricultural development, and, along with MOC, will also be involved in implementing the subcomponent on export market development. Also, MDR is responsible for implementing agricultural extension and rural development programs that are essential for increasing production of marketable agricultural products. MDR is chronically underfunded, depending on donors for financing most of its development activities.

For MDR to become more effective in both policy formulation and program implementation, it needs to improve its information base and increase the efficiency of its programs, especially extension. The AMTT project will provide MDR with some of the data and analysis it needs to do good policy analysis. In the extension area, the recent creation of regional delegations to coordinate the ministry's resources in the field is a step in the right direction. However, MDR will face critical human resource and financial constraints for the foreseeable future. To have a significant impact on increasing farmer productivity and the production of marketed surpluses, MDR must adopt a strategy of focusing its limited resources on targets of opportunity where the resources can make a difference. This can be achieved only with strong leadership and the responsible cooperation of donors.

The Ministry of Finance

The MOF is the key ministry in implementing the ATPRP reforms. There are three specific fiscal actions, and each poses complex policy issues. The first is changing UDEAC tariff rates for certain commodities. Since these changes may not be in the obvious interest of other UDEAC members, the MOF will require a sound analysis and a clear understanding of the importance of the issue to the Chadian economy. Although senior MOF officials are able to deal effectively with these issues, it does not appear that the ministry has the in-house mid-level capacity to carry out the necessary analysis, if there are major objections from other UDEAC members. A.I.D. should be prepared to provide analytical support for the UDEAC negotiations if it is needed.

The other two measures can be carried out unilaterally by the GOC. One exempts imports of agricultural inputs from the turnover tax; the other eliminates the export tax on agricultural products. Although the MOF is positively disposed to implement these two measures, they both set important precedents and should not be undertaken without the proper analysis. Before these actions are taken, the analysis should show that they constitute sound fiscal policy and are clearly in the interest of the Chadian economy. This analysis should be carried out jointly by MOF, MPC, and MDR. At present, it does not appear that these ministries have the necessary in-house expertise to do this analysis. A.I.D. will therefore provide technical assistance under ATPRP to help carry out the necessary studies during the first year of the program.

The Ministry of Commerce

The MOC is responsible for implementing changes in the export licensing procedure, and is also implicated in other ATPRP actions, including improvements in the overall business climate and the promotion of agricultural exports. This ministry has traditionally performed a regulatory function for the private sector but, as a result of the ongoing economic liberalization program, it is slowly moving toward a more collaborative role. The ministry, however, is weak and does not have much experience in its new role. Although it has expressed support for simplifying export licensing, this action is not being taken at the ministry's initiative. It is not likely that MOC will be a major factor in improving the overall business climate during the ATPRP implementation period. Efforts will be made under the export marketing subcomponent to strengthen the export promotion capabilities of the MOC Division of External Affairs.

The Chambre Consulaire

The export marketing subcomponent will be implemented under the auspices of the Chambre Consulaire. As a government institution, staffed by civil servants and funded by government, the Chambre has had limited effectiveness in promoting private business interests. As a result of the weak performance of the Chambre, 40 formal sector businesses created the Conseil National du Patronat du Tchad (CNPT) in 1989. A commission of members from the Chambre Consulaire and the CNPT has recently reviewed the statutes and administrative structure of the Chambre and made recommendations to the GOC that would establish the Chambre as an autonomous organization truly representative of the business community.

The weakness of the Chambre does not pose a major implementation problem for the ATPRP, because the export marketing subcomponent will be financially and administratively autonomous from the rest of the organization. However, as the only organization representing all segments of the private formal sector, its effectiveness is important to sustaining a positive business climate and fostering appropriate policy reforms. If ongoing efforts to increase its effectiveness are not successful, some other means of organizing the private sector for purposes of policy advocacy will have to be developed.

POLITICAL ANALYSIS

In many parts of government there is a feeling of waiting and wondering and, sometimes, confusion. Nonetheless, meaningful policy change is occurring, at least in the realm of economic and development policy. Since the economic crisis of 1986, there has been a series of policy reforms moving consistently toward economic liberalization and public sector financial stabilization. This is partly because many of these changes have been initiated by the major donors who have been consistent in their demands throughout the recent reorganizations, and partly because government officials at the policy level are in general agreement with the direction of change. As these officials move between ministries, they are replaced by others who have been part of the policy-making process elsewhere in government. Although the government's basic commitment to these reforms may not be as strong as might be desired, the longer these reforms are in place, the more they will be become an essential element in how the government carries out its functions.

The obvious winners in this program are the formal sector businesses who will benefit from lower taxes. Initially, these will be mainly importers of trucks and spare parts. In time, formal sector businesses that become involved in importing agricultural inputs and exporting agricultural products will also benefit. Also, informal sector businesses who are at the margin between the formal and informal sectors will benefit if they find it profitable to move into the formal sector. These private sector participants have been expressing disenchantment with the existing situation for years, and most recently in the National Seminar on the Promotion of the Private Sector. Some of these beneficiaries are influential business people, and some are former high-level civil servants. They can be expected to provide key support for the measures.

The most direct losers will be the civil servants employed in administration of the existing policies. Part of their income comes from payments from businesses who wish to avoid the taxes. They do not appear to be in a position to prevent the policy change, but a special effort will be required afterward to ensure that the change is fully implemented throughout the country. It can be expected that these individuals will continue collecting the same unofficial payments unless there is a concerted program to inform importers and exporters of the policy changes.

In the private sector, the main losers will be informal sector businesses that will receive increased competition from formal sector businesses and those formal sector business people, some of whom are senior civil servants, who have obtained preferred access to certain markets by avoiding the existing taxes. This latter group benefits from the current situation, but the design team found no evidence that they are in a position to prevent the particular reforms supported by the ATPRP.

DONOR COORDINATION

Numerous agricultural programs and projects are funded by other donors and PVOs whose activities are consistent with the focus proposed in the ATPRP:

- Market-oriented agricultural extension projects;
- Road construction projects and a cost-effective GOC road maintenance program;
- Lower tariffs that are disincentives to agricultural production and marketing; and
- Government support to the formal sector for identifying and developing export markets for agricultural products.

Agricultural Extension

The focus of PVO agricultural extension projects in Chad is on increasing farmer productivity through introduction of new technical packages, maximum use of small-scale irrigation, provision of inputs and animal traction equipment and associated credit, and formation of farmer groups. Specifically, ACDI is introducing new techniques in the handling, storage, and processing of tomatoes; ORT is introducing new animal-powered water-lifting devices and improved storage facilities; CARE is developing and implementing a marketing information system that has helped 200 women in 5 villages increase their income from taro and vegetables by over 50 percent; and VITA is addressing the need to enhance private sector productivity by providing both urban and rural micro-, small- and medium-sized enterprises with credit, market information, management, and technical assistance.

On a larger scale, the World Bank has provided over $20 million to Chad's agriculture sector through an agricultural rehabilitation project. This activity was developed to enhance the Government's ability to test new approaches in rural development, notably in extension, seed multiplication, and adaptive research trials. A follow-on project with a life-of-project level estimated at $40 million ($20m loan and $20m grant) is being proposed.

The EEC has recently approved its 7th multi-year program. Efforts in the agriculture sector are concentrated in livestock, range management training at Farcha Laboratories, and training and support for village organizations.

Key constraints in crop production are also being addressed largely through the Office National de Dévelopement Rurale (ONDR) with Fonds d'Aide et Coopération (FAC) financing. FAC assistance to this organization has totalled over $30 million, or approximately $6.0 million per annum for the last 5 years. In addition, two very large French PVOs provide substantial assistance in the formation of "groupements agricoles." FAC emphasis is on extending technologies and practices, creating and strengthening farmer organizations, and creating more effective private and public sector supporting services, especially outside the cotton sector. The two geographic areas of focus are those with the most productive potential: the Sudanese zone and the Lake region (the same areas in which all our activities are focused).

Road Maintenance

Because the condition of primary roads is the largest factor in determining the cost of marketing agricultural products, donors have made a major commitment to road rehabilitation and maintenance. The effect will be to bring Chad's road network to a close-to-optimal condition for expected traffic levels.

In 1985, A.I.D. was the first donor to begin a major transportation project in Chad. With our help, the UNDP sponsored a multidonor roundtable on the transport sector and obtained commitments from various donors to fund up to a composite total of 97 billion CFAF ($380 million) in projects. Since then, several other donors have contributed to the transport sector, with the World Bank emerging as the lead player. In 1989, the World Bank launched a $180-million Transport Sector Adjustment Program that concentrates on rehabilitation of selected roads, institutional strengthening of the National Roads Office (OFNAR), abolition of the truck monopoly, and promotion of the private sector in rehabilitation and maintenance activities. A follow-on activity is being designed.

The African Development Bank (AfDB) is financing construction and technical assistance for a training facility for the Ministry of Public Works. The EEC is financing operational support to the Sahr and Moundou subdivisions in the southern part of the country. Italy has financed the construction of a road on the northeastern side of Lake Chad, while the FAC is committed to road rehabilitation between the towns of Ngoura and Mongo, in the central section of the country. The Germans have agreed to finance road rehabilitation in the eastern section of the country to Abeche. These activities directly complement A.I.D.'s activities.

Since 1985, the U.S. has financed over $33.1 million in road maintenance work in the N'djamena Agency, the largest geographic subdivision in the country. The Agency's jurisdiction ranges from the fertile areas north and east of Lake Chad to the densely populated and productive Sudanese zones in the central and southeastern areas of the country. This subdivision network is the major commercial link with Nigeria and Cameroon.

Further road projects are being planned by all donors, and the GOC has taken steps to ensure the proper maintenance of these roads, including an earmarked fuel tax, strengthening of OFNAR, and increased use of private sector contractors.

FINANCIAL ANALYSIS

The ATPRP has two components: non-project assistance in support of policy reforms, and project assistance for export market development, policy-related studies, and monitoring development impact. The purpose of the financial analysis is to determine whether there are any financial issues related to achieving program objectives.

Financial Feasibility of the Program

The adequacy of funds to carry out program activities and ensure benefit sustainability is not a central issue in this program. The economic analysis has found that two of the policy reforms, removing the tax on agricultural exports and reducing the tax on trucks and spare parts, could have a negative impact on government revenues. The removal of import duties on agricultural inputs would have no revenue impact, because there are no commercial imports of these products.

The export tax on agricultural products, which is to be eliminated, has been generating less than $1 million a year in revenues. Figures are not available on the revenues obtained from the duty on imports of trucks and spare parts, but government sources report widespread evasion. The macroeconomic analysis indicates that a lower tax rate could increase total revenue by reducing fraudulent imports of these goods.

The economic analysis concludes that the proposed $3 million per year of budget support under ATPRP considerably exceeds the revenue losses from the policy reforms. The economic analysis also concludes that, by increasing the size of the formal sector, the policy reforms supported by the program will result in a net increase in government revenues before the end of the program.

With respect to the project component, no activity entails financial costs beyond what is funded by the program, and no activity will have to be continued by local public or private sector institutions beyond the end of the program.

Financial Management Capacity of Implementing Institutions

The main financial issue for ATPRP concerns the capacity of USAID/Chad and the GOC to manage the cash transfers provided under the non-project component. This issue is related to tracking the uses of: (1) the dollars provided by A.I.D., and (2) the host country-owned local currencies generated by the dollar transfer. These issues have been addressed by USAID/Chad in recent years in connection with the SDMP and the PL-480 Title III program.

Dollar transfers to Chad are made using the Chad Model, described above in the Financial Management Section. Using this model to track dollars has been found adequate by the Regional Inspector General (RIG) and A.I.D. auditors, and is recommended for the ATPRP. The funds enter Chad in the form of U.S.-owned CFA francs, are transferred to the GOC, and placed into a separate account managed by the Ministry of Finance. The recent audits have found that MOF management of this account has been satisfactory, but recommended that the GOC submit monthly reports on separate account transactions, and that the CO and ADO carry out monthly reviews of the separate account transactions. These recommendations have been accepted by USAID/Chad and will be incorporated into the program agreement.

Experience with tracking local currencies has not been as satisfactory. All budget support uses of LC must be jointly programmed by A.I.D. and the host country government. A.I.D.'s responsibility for and participation in assuring that LC is expended by the host country government for mutually agreed purposes increases as the specificity of those purposes increases. The purposes for which LC can be used, from least to most intensive in terms of financial management, are listed below.

General budget support. Support of the host country budget at the level of the general fund; this includes funding budget deficits.

General sector support. Support to the host country budget at the functional level of a ministry or budget line-item.

Specific sector support. LC used to support A.I.D., other multilateral donors, and host country development projects. Also, support to the host country budget line-item below the level of general sector support (for example, funding one budget line-item of a specific ministry).

Extra-budgetary support. LC used to fund discrete projects or activities outside the host country government's budget. Examples of extra-budgetary support uses are development activities carried out by PVOs and special ad hoc studies carried out by government ministries.

The first determinant of which of these programming option to adopt is the nature of the development problems addressed by the program. If detailed programming of local currencies is deemed important to achieving program objectives, the next issue is the financial management capabilities of the host government. These capabilities are determined through a General Assessment (GA) carried out by the A.I.D. Controller's Office. The latest GA, done in 1991, concluded that the GOC's budgeting and financial systems were inadequate, and the central audit agency did not have the capability to perform audits in accordance with generally accepted standards.

When USAID cannot depend on the host government's financial management systems to account for the use of jointly programmed local currencies, it has two choices: hire an outside firm to manage the special account, or provide technical assistance to the government to help it manage the account and strengthen its financial management.

In the case of the ATPRP, the development problems being addressed do not necessitate detailed programming of local currencies. However, given the focus of the program on agricultural marketing, it was decided to program the currencies for general support to the agriculture sector. This will be achieved by earmarking the funds for MDR budget support. Funds will be disbursed directly from the separate account by the MOF to pay for the salaries of MDR personnel. These transfers will be documented and reported to A.I.D. each month. Experience with the SDMP has shown that the MOF has the capacity to perform this function in a satisfactory manner.

The financial analysis for the ATPRP also explored the possibility of programming for more specific purposes. The analysis recommended that, if so decided, it would have been advisable to create a Local Currency Management Unit (LCMU) in the responsible ministry, the MPC. This was especially recommended in light of other possible sources of A.I.D.-generated local currencies, including a PL-480 Title III program and an upcoming health sector policy reform program. This recommendation is discussed in detail in Annex F.

ENVIRONMENTAL ANALYSIS

Although we do not anticipate that the policy program and project subcomponents will affect the environment, an environmental analysis needs to be incorporated into the PAIP before we can request a categorical exclusion in the Initial Environmental Examination.

SECTION SEVEN

IMPLEMENTATION ARRANGEMENTS

OVERALL PROGRAM MANAGEMENT

Within A.I.D., the ATPRP will be managed by the Agricultural Development Office (ADO). An agricultural economist, under a personal services contract, will be assigned to the ADO for the duration of the program. His or her main responsibilities will be to monitor policy reforms and associated studies, manage the project component, oversee the monitoring of program impact, and participate with the CO in managing program finances. Other A.I.D. offices will participate in program implementation as needed, especially the Program Economist, the Program Officer, and the Project Development Officer.

Within the GOC, the MDR will be responsible for overall program implementation. The ADO will deal directly with the Director General on policy matters and with the head of the Agricultural Marketing Division on activities under the project component. The Ministry of Finance will be responsible for implementing fiscal and tariff reforms, and the Ministry of Commerce (MOC), Division of External Trade, will be responsible for activities related to export licensing and activities in support of the Chambre Consulaire.

IMPLEMENTATION AND MONITORING OF POLICY REFORMS

In A.I.D., the ADO and the Program Economist will be responsible for monitoring the policy reforms. On the GOC side, the lead ministry will be MDR. The mechanism for managing and monitoring the policy reform program will be a Working Group consisting of the Directors General of MDR, MOF, MOC, and the Ministry of Plan (MOP) on the GOC side, and the ADO and Program Economist on the A.I.D. side. This group will meet at least semiannually, or at the initiative of any member. At least eight weeks prior to each annual budget support disbursement, the GOC will submit to A.I.D. a report on the successful completion of reforms agreed upon during the prior year. This report will be reviewed and approved by A.I.D. prior to the disbursement of funds.

The key ministry in implementing most of the policy reforms will be the MOF. The first set of reforms will require actions by the MOF vis-à-vis UDEAC and the World Bank, which supports restructuring of UDEAC tariffs. Since restructuring is scheduled to take place in April 1992, the initial reforms will have been carried out prior to signing the program agreement. Subsequent reforms will be unilateral GOC actions not requiring coordination with UDEAC. Since they have revenue implications, however, they will have to be coordinated with the IMF. These actions include removal of the export tax on agricultural products and waiving of the turnover tax on imports of agricultural inputs.

IMPLEMENTATION OF THE PROJECT COMPONENT

Projectized ATPRP activities will be implemented under an A.I.D. contract with a U.S. firm. The contractor will provide a long-term export marketing specialist and short-term technical assistance for export marketing, farm-level production and marketing studies, and impact monitoring, as described in Section Four. The contractor will be responsible for submitting annual work plans and quarterly reports covering progress in implementing the activities called for in the work plan. The first work plan will be submitted to A.I.D. within one month of the arrival of the long-term advisor. Subsequent work plans will be submitted one month prior to the start of the new year.

The long-term advisor will be attached to the Chambre Consulaire, a government-funded organization representing the interests of the private sector. The Chambre Consulaire will provide a full-time counterpart and office space, and will participate fully in implementation of export marketing activities. The MOC, which has oversight responsibilities for Chambre Consulaire activities, will be kept informed of project activities. The MOC Division of External Trade will participate in project activities as appropriate.

MDR will be the key implementing ministry for ATPRP farm-level studies and program impact monitoring. These activities will involve primarily the Agricultural Marketing Division, the BIEP, and the Bureau of Agricultural Statistics (BSA).

THE MONITORING AND EVALUATION PLAN

Implementation Monitoring

Monitoring of the policy reform program is described above. Within A.I.D., this will be the responsibility of the ADO, with support from the Program Economist. This will be one of the major tasks of the PSC agricultural economist, to be funded by the program. If, in the policy dialogue process, it appears that there will be shortfalls or delays, the ADO will initiate corrective action, including the possible contracting of further studies and analysis under the policy studies subcomponent.

Monitoring of the three project subcomponents will focus on achievement of stated outputs and timely delivery of inputs, and will be the responsibility of the ADO. These are presented in the Program Description above and are summarized in the Logical Framework (Annex G). The contractor will prepare an annual work plan showing a schedule of quarterly targets for each output. The contractor will then submit quarterly and annual reports to A.I.D. on progress in implementing the work plan, explain shortfalls, and propose corrective action.

Impact Monitoring

The monitoring plan is designed to be relatively light and cost-effective, while providing information on the most important static and dynamic impacts of the program.

Major issues to address, in approximate order, are:

- Has the GOC officially changed the policy under review?

- Are those implicated by the policy change aware that it has occurred (traders, transporters, government officials at the national and regional levels)?

- How has behavior of private and public sector market participants changed as a result of the policy change?

- Have marketing costs been reduced as a result of these behavioral changes?

- Have these reduced marketing costs resulted in growth of private sector activity?

- Has the subcomponent on agricultural export market development been an effective vehicle for helping traders identify new export opportunities?

- What has been the people-level impact of these changes?

Once the new policies regarding import tariffs for commercial vehicles, spare parts, and agricultural implements have become law, the GOC will be required to mount a publicity campaign to ensure that traders, transporters, and GOC officials at the national and regional levels are aware of the changes. This campaign to make the public aware of new tax and tariff schedules will be implemented using television, radio, and newspaper announcements, as well as through standard official channels to préfectures, sous-préfectures, customs agents, and so forth.

Shortly thereafter, USAID and the GOC will collaborate in implementing a survey of market participants and government officials to verify awareness of the policy changes. They will be asked to describe the changes in their own words and to provide feedback on how they expect the policy changes to affect them. If it is found that the publicity campaign was inadequate in properly informing certain segments of the private and public sector, the GOC and USAID will jointly determine what additional steps may be necessary for ensuring that all concerned are aware of the changes.

This same process will be repeated in Year 2 of the program for export tax and licensing policy reforms.

To monitor changes in behavior of private and public sector market participants as a result of policy changes, a baseline survey will be performed early in the first year of the program. This study will begin shortly after obligation of funds. Structured interviews will be conducted to obtain quantitative and qualitative data on firm legal status, marketing costs, trade volumes, origins and destinations of commodities traded, formal and informal taxes paid on imports and exports and their variability, sources of investment and working capital, and firm evolution (growth, employment, and so forth). To increase cost-effectiveness, it may make sense to combine this activity with the preliminary assessment of the effectiveness of the publicity campaign.

Beginning in Year 2, USAID and the GOC will begin monitoring changes in trading practices as a result of the policy changes. Light surveys will be performed approximately twice per year. These will involve interviews of a range of formal and informal sector traders, transporters, farmers, and government officials in several regions. The main purpose will be to keep the Mission and the GOC informed of any interesting developments and to provide ideas for in-depth case studies. In addition, information will be generated that may be useful to the AMTT, Road Rehabilitation, and PVO/DIP projects.

In addition, and as part of a regular monitoring program, the Mission will collect official GOC data on increases in new business registrations, export licenses, and official volumes of imports and exports.

Also in Year 2 and in conjunction with the Road Rehabilitation project, a vehicle-operating cost study will be implemented. This will serve the dual purpose of quantifying transport cost reductions from improved roads and from changes in import tariffs.

Late in Year 2 or early in Year 3, case studies of individual commodity subsectors will be undertaken. The Mission will decide which subsectors to study, based on information gleaned from the biannual light surveys. These case studies will address the following questions:

- Has there been increased activity in farm production, transport, and domestic and export marketing, as tax savings are re-invested?

- Have significant numbers of firms entered or left the markets (domestic, export, and import), and if so, why?

- Has there been any structural change in the market (new technologies, new roles for market participants, new producing and consuming areas, and so forth)?

- Are there significant numbers of formerly clandestine firms now operating in the formal sector? What do these firms see as advantages to being in the formal sector? How have they changed their business practices since joining the formal sector?

In addressing these issues, it will also be critical to assess the people-level impact of these developments:

- Have lower marketing costs resulted in higher producer prices and lower consumer prices? If so, what are the characteristics of farmers and consumers who benefited (income, gender, and geography) and what is the approximate magnitude of those benefits?

- Who has benefited from changes in employment and productivity levels and changes in market structure?

- What are the characteristics of market participants who have adopted new production and processing technologies as new markets open up?

These studies will draw on the light surveys carried out as part of the ATPRP monitoring process, transport cost data collected under the Road Rehabilitation project (or AMTT); price data collected under AMTT, the Food for Peace Office, and other GOC organizations; income and expenditure data collected under the World Bank-sponsored Social Dimensions of Adjustment project (for effects on consumers), and staff and consultant reports from the PVO/DIP project that analyze use of improved food production and processing technologies.

External Evaluations

There will be two external evaluations, one in the second year of the program and one at the end. The first evaluation will assess program implementation and program design and recommend changes in implementation or design as appropriate. Issues to be addressed in the first evaluation include:

- Were the policy reforms carried out as planned?

- Has the export marketing activity identified significant new markets, and has the project staff established effective relationships with the private sector?

- Are there constraints, not addressed by ATPRP or other programs, that prevent the program from achieving its objectives?

The final evaluation will focus on program impact. The objective will be to determine whether the marketing of agricultural products has increased and become more efficient as result of program activities. The focus will be on the goal and purpose level indicators. This evaluation will also assess the people-level impact of the program, including how many have benefited, how much, who they are, and where they are. Finally, the evaluation will identify lessons learned with respect to program design, the relative impact of program versus project assistance, and the issues related to increased production of marketed agricultural surpluses in the Chadian context.

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