



**New Partnership for  
Africa's Development (NEPAD)  
Comprehensive Africa Agriculture  
Development Programme (CAADP)**



**Food and Agriculture Organization  
of the United Nations  
Investment Centre Division**

## **GOVERNMENT OF THE REPUBLIC OF THE SUDAN**

### **SUPPORT TO NEPAD–CAADP IMPLEMENTATION**

**TCP/SUD/2909 (I)  
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**Volume IV of V**

### **BANKABLE INVESTMENT PROJECT PROFILE**

**Agricultural Marketing and Rural Infrastructure Development**

*January 2005*



**SUDAN: Support to NEPAD–CAADP Implementation**

**Volume I: National Medium–Term Investment Programme (NMTIP)**

*Bankable Investment Project Profiles (BIPPs)*

**Volume II: Smallholder Water–Harvesting & Productivity Enhancement**

**Volume III: Integrated Traditional Farming & Pastoralism**

**Volume IV: Agricultural Marketing & Rural Infrastructure Development**

**Volume V: Institutional Capacity Building**



## NEPAD–CAADP BANKABLE INVESTMENT PROJECT PROFILE

**Country:** Sudan

**Sector of Activities:** Agricultural Marketing, Infrastructure

**Proposed Project Name:** **Agricultural Marketing and Rural Infrastructure Project**

**Project Area:** National

**Duration of Project:** 5 years

**Estimated Cost:** Foreign Exchange ..... US\$39.93 million  
Local Cost..... US\$9.98 million  
**Total ..... US\$49,91 million**

**Suggested Financing:**

<i>Source</i>	<i>US\$ million</i>	<i>% of total</i>
<i>Government</i>	9.98	20
<i>Financing institution(s)</i>	39.93	80
<i>Total</i>	<b>49.91</b>	<b>100</b>



**SUDAN:**  
**NEPAD–CAADP Bankable Investment Project Profile**  
***“Agricultural Marketing and Rural Infrastructure Project”***

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### Abbreviations

ABS	Agricultural Bank of Sudan
ACP	African–Caribbean–Pacific Countries
APS	Agricultural Planning and Statistics Project
CAADP	Comprehensive Africa Agricultural Development Programme
CBO	Community Based Organization
CBS	Central Bureau of Statistics
CEN–SAD	Community of Sahel–Saharan States
COMESA	Common Market for Eastern and Southern Africa
EC	European Commission
ECHO	European Commission’s Humanitarian Aid Office
EU	European Union
EWFIS	Early Warning and Food Information System
FAO	Food and Agriculture Organization of the United Nations
GAFTA	Greater Arab Free Trade Area
GDP	Gross Domestic Product
GoS	Government of Sudan
HACCP	Hazard Analysis and Critical Control Point (System)
ICT	International Centre for Trade
IGAD	Inter–Governmental Authority on Development
I–PRSP	Interim Poverty Reduction Strategy Paper
JAM	Joint Assessment Mission
MDGs	Millennium Development Goals
MIS	Marketing Information System
MoAF	[Federal] Ministry of Agriculture and Forestry
MoARF	[Federal] Ministry of Animal Resources and Fisheries
MoFNE	[Federal] Ministry of Finance and National Economy
MoFT	[Federal] Ministry of Foreign Trade
MoI	[Federal] Ministry of Industry
MoIT	[Federal] Ministry of Internal Trade
NEPAD	New Partnership for Africa’s Development
NGO	Non–Governmental Organization
NMTIP	National Medium–Term Investment Programme
PEPA	Planning, Economics and Policy Analysis
PMA	Plan for Modernization for Agriculture
SIFSIS	Sudan Integrated Food Security Information System
SPS	Sanitary and Phytosanitary
SR	Strategic Reserve
SSMO	Sudanese Standards and Metrology Organization
TBT	Technical Barriers of Trade
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
WTO	World Trade Organization



## I. PROJECT BACKGROUND

### A. Project Origin

I.1. The immediate origin of this project is the national stakeholders’ workshop which took place in Khartoum in 18<sup>th</sup> of October 2004 to validate the NEPAD–CAADP *National Medium–Term Investment Programme* (NMTIP) for the Sudan agricultural sector. The workshop identified marketing and rural infrastructure development as one of the recommended priority areas for the formulation of bankable investment projects which goes in line with the second pillar of CAADP i.e. improvement of rural infrastructure and trade related capacities. A relationship has long been recognized between country’s agricultural development and its investment in the areas which improve farmers’ access to inputs and product markets such as transportation and market facilities and services even if not directly related to the agricultural production process. Globalization, free trade and trends towards reducing state intervention in agricultural marketing present complex challenges to GoS, whose goal centres on the reduction of poverty, the provision of food security and the promotion of economically sustainable development in Sudan.

I.2. Sudan has applied to join the *World Trade Organization* (WTO) and is currently negotiating its terms of accession. Sudan is also a member of number of regional economic groupings, including COMESA, IGAD, CEN–SAD and the *Arab Free Trade Area*, with increasing attempts in all of them for more comprehensive and deeper regional integration. Membership in these multilateral and regional organizations provides Sudan with opportunities for growth and development but also poses new challenges. Both the *Interim Poverty Reduction Strategy Paper* (I–PRSP, 2004–2006) as commitment to seriously address the poverty problem of the country in a sustained manner, and the *Joint Assessment Mission* (JAM) for rehabilitation and transitional economic recovery through 2010, oriented towards the MDGs goals, identified improving agricultural marketing as a priority. The government and partners in development such as FAO stepped in to help GoS and the private sector take on the challenges that these new marketing transformation presented; these efforts are ongoing. This project would complement and, in some respects, help consolidate these efforts.

### B. General Information

I.3. Sudan, with a total area of about 2.5 million km<sup>2</sup> the largest country in Africa, shares its extensive borders with nine countries, namely Central African Republic, Chad, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Libya and Uganda, in addition to Saudi Arabia across the Red Sea. This unique location provides a chance for Sudan to be one of the most important trading centres among the African and Arab countries. The population of Sudan is estimated to be 33.6 million (2003). The population density is low (14 inhabitants per km<sup>2</sup>). The vast majority of the population is poor, with an average per capita income estimated at US\$395 (World Bank 2003).

I.4. The agricultural sector is the core of Sudanese life and the main driving force for its economy even with the emerging oil sector. Sudanese economy is predominately agricultural with 70 percent of the population deriving their livelihoods in rural areas. Agriculture generates close to 40 percent of the country’s GDP and more than 90 percent of the non–oil export earnings. It accounts for almost two thirds of the employment and supplies about 60 percent of the raw material processed by the manufacturing sector (Table 1).

I.5. In Sudan, there are three major farming systems, namely irrigated, rainfed semi–mechanized, and rainfed traditional agriculture. Irrigated agriculture accounted for an average of 21.1 percent of the total value of agricultural production between 1991 and 1999; semi–mechanized rainfed agriculture

accounted for 6.3 percent; and traditional rainfed agriculture, 12.5 percent. Pastoralism (predominantly livestock production) in the traditional rainfed areas has always been classified as a separate farming system, even though it is integrated with other farming systems, particularly with traditional rainfed farming. Because of diversity of agro-climatic environments under which agriculture sector operates, the high seasonality of production, separation of production and consumption centres by large distances, a wide range of policies, institutions and infrastructure to develop efficient marketing system will be needed to generate growth and achieve the poverty reduction objective.

Sub-sector	1981/82–1990/91		1991/92–1999/00	
	Growth Rate within Ag. Sector (%)	Share in Agriculture GDP (%)	Growth Rate within Ag. Sector (%)	Share in Agriculture GDP (%)
Total crops	-0.8	51.8	8.5	47.0
Livestock	2.0	36.9	15.9	46.9
Forestry	0.7	9.9	-21.5	4.8
Fisheries	1.0	1.4	90.0	1.3
<b>Total</b>	<b>0.6</b>	<b>100.0</b>	<b>10.8</b>	<b>100.0</b>

Source: Central Bureau of Statistics.

I.6. The performance of marketing of *field crops* in the Sudan faces a number of constraints, chief among them are the following: most of the main producing areas — Greater Darfur, Greater Kordofan, Kassala, Gedarif, Blue Nile, and White Nile — are located in remote areas far a way from the consuming centres.

I.7. The major marketing problem of *fruit and vegetables* is the lack of diversity of production within certain areas. An example is mango production in Kordofan. The high seasonality of production is coupled with lack of adequate infrastructure like paved roads, cold storage facilities, cold transport, and inadequate formal credit. Under these conditions the high transport costs (in terms of money or time) do not justify distant marketing. The processing of fruit and vegetables in the Sudan is one of the activities that have been least successful.

I.8. *Livestock marketing* is arranged traditionally. The procedures, however, vary from area to area. In some provincial centres, animals are auctioned, in others, private deals are made through the agency of one or more middlemen. This second system especially can be discouraging to buyer and seller alike. The markets are short of infrastructure and lack organization and development. Poor roads and shortage of transport impede the ready movement of livestock and livestock products from producer centres to urban markets. The long chain of middlemen together with uncountable levies and taxis imposed on by the local authorities erode most of the producers' market share. The recent monopolistic approach as a policy for the livestock export is expected to have far reaching effects on herders. Linked with this is the often inadequate provision of cold storage facilities at provincial markets.

I.9. The key institutions involved in agricultural marketing in Sudan include (i) public sector agencies both at the central and local government's principally playing policy and regulatory roles, (ii) the organized and informal private sector, (iii) civil societies and non governmental organizations as well as development partners. The table below indicates key players in marketing of various agricultural commodities.

Commodity	GoS Role	Government Agencies Involved	Private Sector and Other Players
Sorghum	Promotional & legislative	Strategic Reserve SR, CBs, ABS	Farm-gate petty buyers, processors, exporters, NGOs as food aids, animal keepers
Wheat	Promotional, legislative & regulatory	MoFNE, MoFT, CBs & SR	Private milling companies, traditional milling units, farm-gate petty buyers
Millet	Promotional	none	Farm-gate petty buyers, traditional milling units.
Groundnut	Promotional, legislative & quality control	ABS, Oil Seed Company, CBs	exporters for raw and processed, Animal breeders (for groundnut cakes, oil milling units)
Sesame	Promotional, legislative & quality control	Oil Seed Company, CBs, ABS	exporters for raw and processed, Animal breeders (for sesame cakes, oil milling units)
Cotton	Promotional, legislative & sanitary and phytosanitary measures	Government irrigated schemes, CBs,	Cotton Marketing Company (owned by the farmers) ginneries, Textile enterprises & exporters.
Karkade	Promotional	CBs, ABS	Farm-gate petty buyers, processors, companies, exporters
Livestock (sheep, goats, cattle & camels)	Promotional, legislative & quality control measures	MoARF, MoFT, CBs, Livestock Resource Bank	Farm-gate petty buyers, processors, companies, exporters
Hides and skins	Promotional, & Quality control measures		Exporters, tanneries, traditional processors

## II. PROJECT AREA

II.1. Although the project would be nationwide, it would put more emphasis on remote agricultural regions. These include small scale traditional rainfed agricultural producers in Greater Darfur, Greater Kordofan, Southern Sudan, Red Sea, Kassala, Blue Nile, White Nile, and along the River Nile.

II.2. Throughout the country, the marketing and distribution systems are poorly developed. There is inadequate infrastructure for domestic and export marketing, including product promotion and sometimes there is complete isolation between producing areas and consuming centre. Crop finance for the majority of producers is also inadequate due to lack of collateral required by formal financing institutions. The marketing information system is inadequate with limited involvement of private sector. Local marketing is constrained by lack of long-term contractual arrangements between producers and buyers. As the production process is dominated by millions of small scale producers who face only very few buyers to purchase farm produce, effective monopoly do arise. The (mostly rainfed) production is perceived as unreliable to guarantee supplies at the right time and in correct quantities. Moreover, low quality produce cannot compete in high-income, high-quality markets, and has to be sold entirely on the domestic market, which tends to be more price- than quality-conscious.

II.3. Market information and intelligence is not widely disseminated, apart from amongst the major markets themselves. The farmer selling his produce at a small market may not be aware of its value on the wider national market. Exporters need to know about the state of production in the different geographical areas every season as sources of supply and quality of produce. They need to have information, regularly, about prices, quality of produce and packaging, state of competition, conditions of supply and the consumer needs and preferences in foreign markets. Absence of this information is one of the main obstacles to competitiveness and exports. Moreover, post harvest information is not extended to farmers and exporters. This is imperative now since grades and standards for most export products have been established

### III. PROJECT RATIONALE

III.1. The proposal for an agricultural marketing and rural infrastructure project is based on the following considerations:

- To realize its long-term targets for agricultural growth, Sudan must increase agricultural production and productivity, induce farmers to produce increasingly for the market and increase exports. This requires a strengthened and well-organized market that can effectively increase the farmers' access to inputs and buy whatever the farmers have to offer for sale within and outside the country.
- Recurrent food shortages in some remote states have induced producers, consumers and policy makers to question the performance of the food marketing system. Poor physical infrastructure, including rough roads, a deteriorating railway system, river transport and vast distances to be covered between markets have always resulted in inadequate functioning of interregional trade.
- Marketing margins for agricultural products in Sudan are extremely high because of the lack of an adequate market price information system. Market information provides signals for producers. A strengthened market information system is therefore regarded as a pre-request for efficiency, and equity of the marketing system.
- As fruit and vegetables marketing is monopolized by the big traders who provide finance to the small producers, conditioned by selling them their produce at very low price, promoting producers Marketing Groups and Cooperatives & Support to the development of a marketing centre for preparation of vegetables and fruit for export seems to be rational intervention.
- The high marketing margin for crops and livestock is affecting negatively the international competitiveness of these products. The different marketing costs (commissions, charges, taxes, procurement expenses, personal expenses transportation and storage costs) from Nyala to Omdurman for cattle is equivalent to 110 percent of the purchase price while the percent in case of sheep is estimated to be 97 percent. Crop and livestock producers in the rural areas are sometimes completely isolated from rural and urban markets especially during rainy seasons. The opening of all-weather feeder roads is certainly one of the top priorities for infrastructure development. It would improve communication and exchange between isolated zones and rest of the country and between food surplus zones and food deficit urban centres. It would also facilitate extension programmes and encourage traders to develop more reliable marketing network to input supply and procurement of harvest crop, thus improving incomes of rural poor farmers and make it possible for the urban consumers to get food at reasonable prices.
- The monopoly powers granted to the *Gum Arabic Company* over the export of raw gum Arabic. This resulted in gum Arabic producers in El Obeid receiving only 20 percent of the fob price for raw gum. This has led to reduced incomes for remote small-scale farmers in semi-arid areas of Sudan. A change in the marketing by empowering cooperative of gum producers would be one of the quickest, market based, poverty reduction systems ever devised for Sudan.
- Livestock markets are traditional and short of infrastructure They lack organization and development. The long chain of middlemen together with uncountable levies and taxes imposed on by the local authorities erode most of the producer's market share. Support to

the development of livestock holding grounds is necessary for efficiency and equity reasons

- As Sudan is preparing its terms of accession to WTO. Capacity building in the fields of SPS/TBT would facilitate access of Sudan agricultural products to the international markets (for example setting standards and improvement of the administrative, operational and analytical capabilities of the country to monitor pesticide residue in agricultural products, veterinary drugs residue in meat products and to apply HACCP to meat products).

#### **IV. PROJECT OBJECTIVES**

IV.1. *The overall objective* is to enhance food security and sustainable income generation through strengthening agricultural marketing and improving rural infrastructure in the most disadvantaged areas in rural Sudan namely the Red Sea, Blue Nile, Greater Kordofan and Greater Darfur States, as well as in South Sudan.

IV.2. *The specific objectives* of the project are to:

- Support activities leading to the establishment of a comprehensive, reliable Market Information Service (MIS)
- Support activities leading to the improvement of transport facilities and construction of feeder roads
- Support the development of processing, packaging and quality control systems for perishable products
- Support the development of livestock holding grounds
- Promote producer marketing associations and cooperatives
- Promote a marketing enabling environment
- Build capacity in the area of SPS/TBT, a measure that will facilitate international market access for Sudan’s agricultural products.

#### **V. PROJECT DESCRIPTION**

V.1. This project, to be implemented over a period of five years, would include the following components as identified by the above mentioned national stakeholders’ workshop: market information, processing/packaging/quality control/storage facilities, empowering producer associations/cooperatives, livestock holding grounds, market credit and feeder roads. The components are briefly described below:

##### **Component 1: Strengthening Marketing Information System (MIS)**

V.2. The principal focus of this component would be to establish a firmly institutionalized *market information system* (MIS) that can effectively collect, tabulate, analyse, interpret and disseminate

market data and intelligence to the farming and trading community within and outside Sudan. Component activities would include: reviewing experiences and lessons of past attempts in setting up MIS (IGAD project, USAID, as example); assessing information needs of producers, consumers, exporters and importers; developing linkages with private sector partners to support the market information service; and final design and dissemination of market information via a combination of media channels (radio, print, SMS phones, Internet, etc.).

V.3. Capacity building and logistic support (equipment and devices) for both formal and informal agricultural institutions especially in the areas of collection and analysis of marketing data, prices, and marketing services such as sorting, grading, packing, labelling, and transporting is badly needed. The challenge is more pronounced by the intention of Sudan’s accession to WTO, whereby, a need for an efficient and capable marketing system to provide information for WTO accession is vitally required. The Ministry of Agriculture and Forestry (MoAF), Directorate of Agricultural Planning & Economics is the relevant institution to be the focal point for this component of the project. It should work in collaboration with concerned institutions (Agriculture, Animal Resources, Trade, Industry, Central Bureau of Statistics, farmers, pastoral and producers associations, CBOs, NGOs and others). The cost of this component is estimated at US\$8,592,000 (see Appendix 3 for details).

### **Component 2: Supporting the Development of a Marketing Centre for the Preparation of Fruit and Vegetables for Export**

V.4. Although the country produces a significant surplus of fruit and vegetables, about 25–40 percent of the production is lost due to its perishable nature, inadequate outlet, poor storage facilities and poor post harvest measures. The horticultural business is mainly a private sector activity. The role of government is to formulate a clearly defined development strategy to make use of the abundant resources and realize their potential. The condition of Sudanese horticultural produce on the internal wholesale market is well below accepted international export standards. Fruit and vegetables are unwashed, and are unsorted. Yet, the potential quality can match that produced in any of the countries that compete with Sudan in the international export markets. This is particularly true for mangos, grapefruits, lime, bananas (as fruits), peppers, onions, tomatoes, green beans, eggplants, and gallia. To induce farmers to improve quality, farmers need to see that there is differential pricing as a reward for good quality. Both the exporters and the government (by strictly enforcing the grades and standards law) have to take care of this aspect.

V.5. Based on previous experiences in exporting fruit and vegetables, a number of the factors needs to be taken into accounts for successful export strategy. These include: produce harvesting, post-harvest handling/storage, grading, packing, processing and quality control system. The main thrust of this project component is therefore, to establish a modern centre including the necessary preparation and equipment for grading, distribution and packing of fruit and vegetables; provision of services to exporters from the private sector, cooperatives and producers; availing other marketing services in the form of equipment, cold store facilities and transport and handling equipments; and provision of marketing information on traditional and potential foreign markets. The MoAF, Directorate of Horticultural Sector would be the relevant institution for implementation of this component in collaboration with the stakeholders and relevant Government institutions. An area of 50,000 m<sup>2</sup> would be needed for the project, one tenth of this area would be devoted to the buildings which includes stores, preparatory units, cold stores, grading and weighing machines, offices and shaded area for receiving and delivery. Four lines would be needed for the cleaning, grading and packing of the exported fruits and vegetables. The cost of this component is estimated at US\$7,704,000 (details in Appendix 3).



### **Component 3: Promoting Producers Marketing Groups and Cooperatives**

V.6. This project component aims at empowering and mobilizing gum<sup>1</sup> and other crop producers to form groups for marketing purposes, facilitating training of members and providing them with revolving capital to start engaging in agricultural marketing operations. It would also finance in-country and regional study tours to exchange knowledge and experiences with other marketing groups. This component would include: capacity building of Gum producers and other agricultural producers associations through training of these societies in formation, administration, management and provision of offices and equipment; improving the degraded hashab forests through establishment of nurseries in Greater Kordofan, Greater Darfur and Blue Nile States, plantation of 1 000 ha and training of Gum producers in plantation of acacia trees and restoration of pastures and protection of rangeland; production and marketing of Gum by the producers’ association through training in tapping, collection, packing, storage, quality control and marketing of Gum. As well as establishing of micro-financing systems to sustain the financial viability of these associations; and designing agricultural research aimed at developing technologies useful to small-scale farmers. Such technologies would provide the basis for transformation that will sustain growth, keep producers competitive in world markets, and provide improved livelihoods for farmers and pastoralists.

V.7. The cost of this component would be around US\$5 million to cover the costs of capacity building of the producers and marketing groups, rehabilitation of the existing hahsab forests, new plantation, and restoration of pastures and protection of rangeland.

### **Component 4: Support the Development of Livestock Holding Grounds**

V.8. Sudan has a rich and diversified livestock sector. The range of products includes live animal exports, meat, hides and skins, and dairy. The government’s principal strategy for livestock development is to improve the delivery of veterinary services and the transport and marketing infrastructure. The structure of the livestock marketing is based on primary markets at the village level, secondary markets at the provincial level, and five terminal markets (of which Omdurman is by far the largest) for final domestic sales or exports. Marketing margins are extremely high in Sudan because of the inadequate infrastructure and lack of organization and development. Poor roads and shortage of transport impede the ready movement of livestock and livestock products from producer centres to urban markets. The long chain of middlemen together with uncountable levies and taxis imposed on by the local authorities erode most of the producers’ market share. Linked with this is the often inadequate provision of cold storage facilities at provincial markets, poor markets distribution and organization.

V.9. The overall objective of this component is to enhance the development and organization of livestock secondary markets in Greater Kordofan and Greater Darfur. The establishment of holding grounds in the secondary markets will facilitate access to market, helps in the organization and development of markets with adequate and cost effective infrastructure; and facilitate the assimilation and dissemination of information (sex, type, diseases number, age, etc.). The specific objectives of the component include: improving market access; equipping these markets with adequate and cost

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<sup>1</sup> Forest and wood lands cover some 25% of the total country area. Sudan forests annually provide 18 million cubic meters of fire wood, industrial and sawn timber with 30 to 50 thousands metric tons of gum Arabic. Farmers are receiving less than 25% of gum price due to gum trade monopoly. Forest resources are shrinking at a high annual rate due to land clearance for crop production expansion. This had rendered vast areas to become tree less in central and northern Sudan where soil erosion and desert creep became serious problem. The long term effect of soil erosion is manifested in the decline of crop productivity, range lands deterioration and poor forest regeneration.

effective infrastructure (physical and technical); and facilitating the assimilation and dissemination of market information. These components include a water component; check point (veterinary); communication equipment; security guards and offices; weighing machine (live weight pricing this will encourage herders to sell their animal at younger age higher price); introduction of grading system; animal feed resources; and shed for auction.

### **Component 5: Capacity Building in the Area of SPS/TBT**

V.10. The main thrust of this component would be to enhance the capacities in these areas i.e. SPS/TBT measures. Within this context this component seeks to achieve the following: revision and modification of governmental laws and policies regarding added value on production and processing inputs to allow the food industry to accommodate quality and food safety issues; revision of and amendment made to food laws, as well as legislation to be harmonized to the greatest extent possible, with SPS requirements; resolution of conflicts and overlapping among national food control authorities in order to minimize the number of quality certificates issued by each authority for the same commodity.

V.11. The component would focus on setting and enforcing product standards for crops, livestock and fisheries to conform to national and international norms. It would also address constraints with regard to pesticide residue levels, hygiene, phytosanitary issues, product preservation and product packaging. Experts would be engaged to work closely with the *Sudanese Standards and Metrology Organization* (SSMO) to inventory relevant laws, assess their update requirements and draft needed amendments for legislation.

V.12. The SPS and TBT agreements of the WTO define rules for setting national standard and regulations relating to sanitary and phytosanitary measures as well as technical requirements for food safety and quality so that such regulations do not unduly restrict trade. A major challenge faced by the Sudan is raising the SPS/TBT standards of its exports to at least internationally recognized levels. The Sudanese national standards for food products additives, veterinary products and pesticides are identical to those of CODEX.<sup>2</sup> Institutions offering certificates are subject to SSMO accreditation. The international inspectors intending to monitor quality imports to Sudan are subject to prior registration by SSMO on the basis of bilateral agreements or prior registration by SSMO.

### **Component 6: Improving Market Access for Small Producers through Establishment of Rural Feeder Roads**

V.13. Rural poverty is widely spread in the Sudan. This situation is primarily associated with low rainfed crop production, inaccessibility of markets and inadequate access to land resources. Agro-pastoralist groups generally appear to have a lower standard of living than the pastoralists. Both these groups are disadvantaged compared with people in the mechanised farming and business sectors, who mainly come from outside of the region. Rural infrastructure plays important roles, particularly for a large country like Sudan, in overcoming the recurrent food shortages and low rural farm incomes. This component is indented to construct feeder roads in five states of Greater Darfur and greater Kordofan States where poverty and food insecurity are widely spread.

<sup>2</sup> The “*Codex Alimentarius*”, or the food code, is a collection of international standards for the safety and quality of food as well as codes of good manufacturing practice and other guidelines to protect the health of the consumer and remove unfair practices in international trade.

V.14. Many of the feeder roads were not opened or rehabilitated for long years due to the low priority given to them by the government as a result of the internal conflicts and stoppage of foreign financed projects. This component would build 1,000 km of feeder roads (200 km per state). In most cases feeder roads would have an average length of 2–20 km with a carriage way of 3 to 5 meters. The prevailing cost per km of feeder road is estimated at US\$20,000. Hence the total costs in the five states would be around US\$20 million,<sup>3</sup> out of which 20 percent would be contributed by the local government and authorities. It is of worth mentioning here that the impact of improvement of feeder roads which will connect the small producers to the market through the paved roads, will be significant, as it will internally lead to a significant improvement of transportation facilities. The expected completion among private sector in transport will eventually lead to reduction of cost of transport.

## VI. INDICATIVE COSTS

Component	Cost (\$'000)
1 Marketing Information System	8,592
2 Marketing Centres	7,704
3 Producers Groups	5,000
4 Livestock Holding Grounds	1,600
5 Capacity Building SPS/TBT	4,750
6 Feeder Roads	20,000
<b>Total Base Cost</b>	<b>47,646</b>
Contingencies	2,270
<b>Total Cost</b>	<b>49,916</b>

## VII. PROPOSED SOURCES OF FINANCING

VII.1. The project could be financed through contributions of the Federal Government, donors such as the EU, regional banks (e.g. *Islamic Development Bank, African Development Bank, CEN-SAD Bank for Investment and Trade*) and the beneficiaries, including the private sector.

## VIII. PROJECT BENEFITS

VIII.1. Principal benefits would accrue to farmers, traders and exporters in the form of improved living standards, nutritional status, increased rural incomes and business opportunities. As well, the project would contribute to the enhancement of international competitiveness and quality standards of the agricultural produce. Overall, this would contribute to poverty reduction in the rural areas. Specific benefits would include:

- A well established and operated market information and network service;
- Improved transport facilities and feeder roads;
- Established and operational processing, packaging and quality control systems;

<sup>3</sup> Or 5 states x 200 km x 20,000 US\$/km.

- Developed cold storage facilities for the marketing of perishable products;
- Established livestock holding grounds which will facilitate and enhance linking the animal herders to market;
- Well functioning agricultural marketing centres;
- Properly functioning producers marketing association and cooperatives;
- A conducive regulatory framework;
- Improved international competitiveness of agriculture produce;
- Capacity building and strengthening of government institutions engaged in agricultural marketing and empowering the organizations of farmers, pastorals and other stakeholders.

## IX. IMPLEMENTATION ARRANGEMENTS

IX.1. Under the liberalization policies currently adopted in Sudan, the public and private sectors play different but complementary roles. While the private sector is responsible for the production, processing and marketing of agricultural products, the public sector takes the responsibility of creating an enabling environment by drawing up appropriate policies, removing barriers to trade at all levels, improving infrastructure and putting in place an appropriate legal and regulatory framework. The specific institutions and the role they would play in project implementation are summarized in table (3). For successful implementation the different partners involved would be requested to cooperate efficiently and perform their roles in a harmonized way.

**Table 4: Key Institutions for Project Implementation**

Intervention Area	Lead Agency	Participating Partners
1. Market Information System	Directorate of Agricultural Planning and Economics (MoAF)	MoAF, MoFT, CBS, Mol, Metrological Department, Farmers and Producers Organizations, CBOs, State ministries of agriculture.
2. Marketing Centre for Preparation of Fruits and Vegetables	Directorate of Horticulture (MoAF)	Fruits and vegetables exporters (private sector), farmers unions, ABS, CBs, MoFT.
3. Promoting Producers Marketing Groups and Cooperatives	Directorate of Agricultural Planning and Economics (MoAF)	Gum Procurers Union, National Forest Corporations, ABS, CBs, MoFT, Food Processing Institute, private sector.
4. Establishment of Livestock Holding Grounds	Ministry of Animal Resources and Fisheries (MoARF)	Department of Animal Resources at the state levels. Private sector (exporters).
5. Capacity Building in the Area of SPS/TBT	The Accession Unit to the WTO	MoAF, MoARF and Ministry of Science and Technology.
6. Improving Market Access for Small Producers through Establishment of Feeder Roads	Private sector and the Ministry of Roads and Bridges	MoAF, MoARF in collaboration with State ministries of agriculture, animal resources and irrigation.

## X. TECHNICAL ASSISTANCE REQUIREMENTS

X.1. There has been considerable technical support from USAID, FAO, IGAD and others (Appendix 1), but the impact of these interventions was limited as addressing the problem of marketing needs a holistic approach. Thus, there are substantial gaps in required interventions in the area of crops and livestock marketing, including the following:

- Information and communication technology for establishing the MIS;
- Policy analysis expertise;
- Trade and market access support expertise, in particular to meet the recent development in WTO trade rules and regulations;
- Support for *Warehouse Receipt System* development;
- Training in trade policy formulation and negotiations.

X.2. A central aspect of the success of the proposed project would be the building of the capacities of local partners, including farmers and pastoral unions and organizations, CBOs, and government institutions, especially MoAF and *Ministry of Animal Resources and Fisheries* (MoARF) at the central and local levels and the *Mahaliya*.<sup>4</sup> Capacity is understood here as the ability of individuals, groups and institutions in terms of skills, knowledge, attitudes and organizational behaviour to be able to perform functions and responsibilities to achieve the objectives of the project. Capacity grows from within through a process of learning and change, building on existing experiences and skills. However, and recognizing the limited existing capacities in the South of both communities and institutions as a result of decades of war, considerable efforts need to be exerted in this field through training, awareness raising and the necessary institutional support. Capacity building in participatory M&E should be an integral part of capacity building process.

## XI. ISSUES AND PROPOSED ACTIONS

### XI.1. *Legal, Policy and Regulatory Framework:*

- The government should provide a legal backing to the utilization of collateral in the *Warehouse Receipt System*;
- A number of crops, livestock and food quality control statutes are outdated and cannot meet the more exacting WTO rules and regulations;
- There is no clear legal framework for the public/private sector cooperating in the implementation of development activities;
- The conflicting interest between the states and federal governments needs to be reconciled;
- The coordination of the roles of the different actors involved directly or indirectly in marketing including NGOs and civil society organizations.

XI.2. *Technical and Financial Sustainability.* This should be examined in light of the previous experience in the area of marketing. There is an issue of public budget ceilings and/or budget cuts, which in recent years has been a recurrent theme, and has tended to undermine the sustainability of operations of government-supported projects.

<sup>4</sup> The *Mahaliya*, or locality (subunit of a province) has an elected council, which elects an executive body. This council is assisted by technocrats and civil servants, who may not necessarily be residents of the locality. The *Mahaliya* is entrusted with a wide range of responsibilities which cover all aspects of life: political, security, economic and financial, educational, social, public works and public health.

XI.3. **Limited implementation Capacity.** Project implementation capacity in local governments and farmer/trade organizations is very limited and could hinder speedy project progress. This, however, could be minimized through provision of appropriate technical assistance and training.

XI.4. **Unstable Commodity Prices.** The recurrent drought and other natural disasters, coupled with the seasonality and perishability have led to price fluctuations of most of the agricultural produces which in turn discourage smallholders to continue or increase production of marketable surpluses or reduce the number of exporters. Efficiency in marketing, productivity enhancing measures, the reduction of associated technical risks and improved management of price risks, which are all integral parts of the project, will be crucial in ensuring resilience to any volatility in commodity prices.

XI.5. **Civil Instability.** The ongoing civil instability in Darfur Region (Western Sudan) could devastate the market access particularly for crops produce over there.

XI.6. **Study of the Previous, Ongoing and Planned Activities or Programmes with a Marketing Component.** On preparation of the full detailed technical and financial project document, the previous, ongoing and planned activities or programmes with marketing component should be carefully studied and review to derive lessons from the experience of success and failure and also to avoid duplication of the ongoing and future projects.

XI.7. For successful implementation of the project, also the following should be considered.

- Develop strong strategic partnership of relevant government institutions (MoAF, MoARF, State Ministries of Agriculture, Animal resources and Irrigation, MoFNE, MoI, MoFT, MoIT, etc.) and with farmers, producers, pastoralists, traders associations, CBOs, local and international NGOs directly or indirectly involved in agricultural marketing and food security issues.
- Strengthening and enhancing capacities of agriculture related civil society organizations namely farmers’ Union and Pastoral Union, which would contribute to the success of the planned marketing interventions.
- The project should consider building and empowering community based organizations, as they are the centre in the identification, formulation, implementation and the success of the developmental interventions. This should involve training in agricultural practices, food processing, handicrafts, fishing skills, animal care as well as organizational capacities, management of meetings, book keeping, etc.
- Strengthening the agricultural institutions’ weak capacities in terms of staffing, qualifications and specialization, logistics and capacities for follow-up and monitoring.

## XII. POSSIBLE RISKS

XII.1. The potential risks that could influence project operations and outcome can be briefly outlined as follows:

- Possible delays in attracting the foreign donors and the private sector to participate in financing and implementing the proposed project activities.
- Although the Federal MoAF is the key institution on this marketing project, agricultural marketing should be looked at as a multi-sectoral integrated programme involving many

key stakeholders. This necessitates the establishment of a true and strategic partnership that involves both state and non–state actors. This represents a true challenge.

- *Failure to make careful alliances and partnerships with key government institutions* that have the authority and influence to support the programme process throughout its duration. In this regard the State ministries of agriculture, Federal ministries (MoFNE, MoFT, MoIT, MoI, etc.) and the *Mahaliya* should necessarily be key players.
- *Failure to empower the farmers and pastorals unions and organizations* to be actively involved in the project.
- *Risk of re–continuation of civil strife* in the South and the on going conflict in the West could undermine marketing activities in those regions.
- *Failure to collaborate with the key NGOs/Agencies* that have or will have their own programmes and resources for marketing and development in the Sudan (FAO, WFP, CARE, UNICEF, NCA, for example).
- *Failure to incorporate the element of sustainability* of the project (technical and financial sustainability).





Appendix 1: Map of Sudan





## Appendix 2: Previous, Ongoing and Planned Activities or Project/Programmes with a Marketing Component

### *Previous marketing components include:*

1. Throughout the 1980s USAID supported *Agricultural Planning and Statistics* project (APS) including marketing component. These comprise studies on marketing costs and margin of the main Sudanese agricultural products, price seasonality movement, agricultural price bulletin and the ten leading countries for Sudanese export and imports. Agricultural prices in Sudan: a historical review and analysis 1970–1984. Unfortunately, this programme stops early 1990’s for political reasons.
2. FAO implemented a food security project which includes series of studies in food–grain marketing, storage and processing; the results provided key inputs in the design of the *Plan for Modernization of Agriculture* (PMA).
3. As part of IGAD project, a historical review and analysis of agricultural prices in the Sudan was undertaken for the period 1985–1997. The second component of IGAD project was the *marketing information system* (MIS) which is a follow up of the IGAD’s *Early Warning and Food Information System* (EWFIS) whose purpose was to strengthen the capacity of national and regional early warning system in food security monitoring. The MIS project had a system for acquisition, transmission, management, interpretation of marketing data and uploading market prices on the web site ([www.igadmis.net](http://www.igadmis.net)). MIS produced biannual publication on market and food security at national and regional levels.

### *Ongoing and planned projects with marketing component include:*

1. FAO is providing technical assistance to the Sudan in the area of food security and marketing policies. In this context two technical cooperation projects are on–going. The first one (TCP/SUD/2906) is aiming to *Strengthening the Institutional Capacity for the Planning, Economic and Policy Analysis (PEPA) for the Agriculture Sector* with an overall project objective of assisting the Government of Sudan in strengthening the capacity of the agricultural sector for functional planning, economic and policy analysis and design and in defining clear mandate and responsibilities between the concerned institutions, in line with the new economic emphasis on a private sector market led economy.
2. Through the second TCP project (TCP/SUD/2904 “*Strengthening National Capacity in Agricultural Trade Negotiation*”) FAO is assisting Sudan in building capacities of the agricultural sector (including livestock and related disciplines) related to Sudan’s accession to WTO.
3. The UNDP, UNIDO and FAO have prepared a project document with the aim of supporting Sudan in the promotion of community–based agro–related micro–processing and manufacturing activities. The project is also contributing to the sustainable resettlement of internally displaced people in the Sudan. The project document covers up to 12 states across the Sudan that encompasses northern, southern, western and eastern parts of the country. High potential areas that offer scope for production, processing and marketing are identified and comprehensive sub–sectoral actions are formulated with milestones in the short, medium and long term.

4. *EU food security programmes:* Following the signing of the internationally brokered framework for peace in July 2002 at Machakos, the international community expects the ongoing negotiations to achieve a peace accord in 2004. After 12 years of suspended cooperation (though substantial humanitarian assistance was maintained through ECHO), policy dialogue between the EC and the Sudan resumed about two years ago and has led to the joint preparation of a *Country Strategy Paper* and a *National Indicative Programme for the Period 2002–2007*. The EC is committed to re-launch formal development assistance to Sudan upon the signature of a peace agreement. Within this framework, the *Sudan Productive Capacity Recovery Programme* (SPCRP), a €60-million programme over six years was prepared with TCI support. The programme focuses on rural infrastructure, rural and advisory services, capacity building and the recovery of rural livelihoods. A comprehensive draft formulation report with implementation modalities and eight pilot project documents to test the programme during a two year start up phase was also prepared. The programme will be finalized as a result of national workshops where proposals would be reviewed by stakeholders.

***Planned activities include the following:***

1. COMESA is undertaking study to strengthen agriculture market information systems in the region. The study aims at strengthening food security and agriculture marketing information system in the COMESA region through studying the suitability of the existing market information system, its strengths and weaknesses and to identify crucial factors that are needed to establish a well functioning and successful agriculture MIS that will not only promote food security but also contribute to improve trade and integration among its member countries namely Sudan, Kenya, Rwanda, Zambia and Mauritius.
2. Under the *Joint Assessment Mission (JAM)* a project entitled *Institutional Capacity Support Programme for Integrated Food Security, Vulnerability & Market Information Systems (SIFSIS)* is under preparation by FAO. The project aims to formulate a programme to build local capacities in information systems for use into food security policies in Northern and Southern Sudan. The project would involve agricultural policy and strategy formulation, the delivery of agricultural support services and information gathering analysis and preparation. It will involve also the establishment of centres of excellence for the analysis of agricultural information and the formulation of policies and strategies.

**Appendix 3: Detailed Costs Estimates****1. Market Information System Component*****Component Cost:***Total cost is estimated at ..... **US\$8,592,000**Foreign component: ..... **US\$7,160,000**Local component: ..... **US\$1,432,000**

Item	Quantity	Unit Cost (US\$)	Total Cost (US\$)
Motorcycle	52	3,000	156,000
Car	10	30,000	300,000
Computer	60	1,500	90,000
Printer	60	500	30,000
UPS	60	500	30,000
Photocopier (heavy duty)	6	5,000	30,000
Digital multimedia projector	6	6,000	36,000
Flash Disk	60	100	6,000
Portable CD writer	10	200	2,000
Logistics supply	–	100,000	100,000
Data collection and field surveys	–	500,000	500,000
Studies	20	20,000	400,000
Training abroad	60	25,000	1,500,000
Seminar	15	8,000	120,000
Workshop	15	8,000	120,000
International experts	5	150,000	750,000
Local consultants	30	60,000	1,800,000
Topping of salaries	60	9,000	540,000
Other	–	–	650,000
<b>Total</b>			<b>7,160,000</b>

***Government Contribution:***

Government contribution will cover offices, furniture, topping for local staff, steering committee, coordinator salaries, incentives and others local cost.

20 percent of the foreign component: **US\$1,432,000**.

**2. Marketing Centre for Preparation of Fruits and Vegetables for Export Component**

Item	Cost (US\$'000)
Land	2,500
Buildings and civil works	930
Line for preparing and grading of fruit	250
Line for preparation of onion	130
Line for preparing other vegetables	25
Equipment	700
Lifting machines	100
Generator	150
Cold store trucks	250
Lorries	150
Furniture and office equipment	20
Communication systems	15
Working capital	1,200
<b>Total</b>	<b>6,420</b>

**Government Contribution:**

Government contribution will cover toping for local staff, steering committee, coordinator salaries, incentives and others local cost.

20 percent of the foreign component: **US\$1,284,000.**

**3. Promoting Producers Marketing Groups and Cooperatives Component**

Item	Cost (US\$'000)
Establishment of nursery/plantation of 1,000 ha	2,000
Training on tapping	300
Collection, packing and storage	500
Quality control (standards and specification)	500
Processing and packing equipments	300
Training for group formation and management	400
Micro credit	1,000
<b>Total</b>	<b>5,000</b>

**Government Contribution:**

Government contribution will cover toping for local staff, steering committee, coordinator salaries, incentives and other local cost.

20 percent of the foreign component: **US\$1,000,000.**

**4. Establishment of Livestock Holding Grounds Component**

Item	Cost (US\$'000)
Land cost	100,000
Enclosure with fences depending on animal type	80,000
3 Offices + Security Clinics + Bank	40,000
Telecommunication systems	20,000
Sheds for stakeholders	20,000
Water sources	50,000
Weighing machine	20,000
Other equipment	30,000
Training	20,000
Contingency	20,000
<b>Total</b>	<b>400,000</b>

**Component Cost:**

The total component cost for the four locations would be around **US\$1,600,000**.

**Government Contribution:**

Government contribution would cover offices, furniture, topping for local staff, steering committee, coordinator salaries, incentives and others local cost.

20 percent of the foreign component: **US\$320,000**.

**5. Capacity Building in the Area of SPS/TBT**

Item	Cost (US\$'000)
Survey of national laboratories	250
Analytical capacities in relation to food contaminants	500
Legislation and standards	250
Equipment	1,000
Laboratories	2,000
Training and capacity building	250
Development of organic certification	500
<b>Total</b>	<b>4,750</b>

**Government Contribution:**

Government contribution will cover offices, furniture, topping for local staff, steering committee, coordinator salaries, incentives and others local cost.

20 percent of the foreign component: **US\$950,000**.





#### Appendix 4: Constraints and Opportunities

Sudan’s agricultural marketing (domestic and export) performance is affected by a number of *constraints*:

- Poor conditions of roads and infrastructure contributed to isolation of markets hindering market integration, sometimes there is complete isolation between producing areas and consuming centre (natural and manmade mine);
- The high seasonality and periodicity of supply for perishable products;
- The marketing and distribution systems are poorly developed;
- Livestock marketing is arranged traditionally. The markets are short of infrastructure and lack organization and development. The long chain of middlemen together with uncountable levies and taxis imposed on by the local authorities erode most of the producer’s market share. The recent monopolistic approach as a policy for the livestock export is expected to have far reaching effects on herders;
- Poor marketing information systems (limited capacity in terms of equipment, infrastructure, human resources to gather, analyse and disseminate information to users);
- The country is perceived as an unreliable supplier, unable to guarantee supplies at the right time and in correct or contracted quantities;
- Local marketing is also additionally constrained by a limited local urban centres and lack of long-term contractual arrangements between producers and buyers;
- Limited involvement of private sector in market information;
- The low and variable quality of produce and poor quality measures constraints completion in high-income, high-quality markets. This reflects the nature of the domestic market, which tends to be more price- than quality-conscious;
- Most of the agricultural crops are produced by a large number of small peasant farmers spread in remote areas with limited harvest period, poor storage facilities and lack formal micro finance for marketing and therefore sell their crop at very low prices;
- Agricultural exports depend on the surplus of local production i.e. they do not meet specific export market requirements;
- There are inadequate credit and export pre-financing packages;
- Poor capacity for trade policy formulation and negotiations;
- Trading blocks tend to discourage imports from less-developed countries through non-tariff barriers.

#### *Opportunities include:*

- Sudan is endowed with diverse and good agro-ecological conditions which enable it to produce marketable surpluses for a wide range of crops (both field and horticultural crops) as well as tender livestock and livestock products and fisheries;

- Sudan shares its extensive borders with nine African countries and to Saudi Arabia across the Red Sea in addition to its proximity to Europe. This unique location provided a chance for Sudan to be one of the most important trading centres among the African and Arab countries;
- Sudan is a member of number of regional economic groupings, including COMESA, IGAD, CEN–SAD, ACP and the *Arab Free Trade Area*, with increasing attempts in all of them for more comprehensive and deeper regional integration;
- A comparatively good and improving communication infrastructure;
- The emergence of private–sector associations that are helping to organize producers and manufacturers of exportable products;
- Sudan has great opportunity for exporting organic agricultural products for which world market is growing and fetching the highest prices.