

*In the Name of Allah, the Most Gracious, the Most Merciful*

**Republic of Sudan  
Council of Ministers  
General Secretariat**

**Agriculture and Articulate a Future Vision and  
Action Plan for Agricultural Revival**

**Executive Programme for Agricultural Revival**



April 2008

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Making rational use of the huge and diverse resources of the Sudan has been an unfulfilled promise and an outstanding challenge. Since the early days of Independence, successive plans and strategies to develop agriculture have been implemented. However, these plans had a limited success in achieving their objectives. The main reasons for the frustration of the agricultural development plans are: the low priority assigned to agriculture in the allocation resources, lack of political stability, the top-down approach to development which reduced rural producers to policy-takers rather policy-makers, and the weak administrative and implementation capacity of the government machine.

Two important recent developments have made focus on agricultural and industrial development an urgent issue:

- The advent of oil as a major source of public revenue and export proceeds. Oil revenues constitute 50% of public revenue and 85% of total export proceeds. The risk of dependence on oil is very high because of its highly volatile international prices and because of the fact that it is nonrenewable resource.
- Accession of the Sudan to the WTO necessitates increasing the productivity of the agricultural sector and improving its competitiveness in local and international markets.

Recently, the Sudan has taken a new and strategic direction to support agriculture. This new direction is manifested in the declaration of "The Green Mobilization" and the preparation of the Five-Year Strategic Plan. In continuation of this thrust, a high committee under the chairmanship of His Excellency, the Vice President Ali Osman Mohamed Taha has been formulated to study the present status of agriculture and articulate a future vision and action plan for Agricultural Revival.

The committee which consisted of a number of distinguished persons concerned with sector's development, including politicians, executives, researchers, producers, farmers' and pastoralists' unions, NGOs, private sector, civil society organizations and manufacturers, has put together a fully integrated programme that constitutes a national strategy for the Agricultural Revival as well as a compass for correcting the current programme and plans of ministries and institutions in the center and the states, in addition to establishing a monitoring and follow up system for assessing the results and impacts of the programme.

The programme was based on the following nine key indicators of success:

- ↗ Creating an appropriate atmosphere for a sustainable development of agricultural production.
- ↗ Capacity building of producers and institutions.
- ↗ Addressing the issues of agricultural lands.
- ↗ Developing support services.
- ↗ Development and modernization of agricultural systems.
- ↗ Protecting and developing natural resources
- ↗ Agricultural industrialization
- ↗ Implementation of quality control and safety measures
- ↗ Establishment of international partnerships.

A number of programmes have been formulated to address these components for realizing the desired transformation. The most important features of these programmes are as follows:

**First:** The executive programme for Agricultural Revival has defined the macro and sectoral policies for creating an appropriate atmosphere for achieving agricultural and agricultural-led industrialization as well as setting a time-bound programme for execution in addition to defining the implementing entities.

**Second:** The programme defined the infrastructure conducive for agricultural development focusing on the following:

- ↗ Water harvesting programmes, dams, hafers in rainfed areas due to its significant importance for the stability of the ways of living of farmers and pastoralists, in addition to increasing production and productivity and providing drinking water for humans and animals.
- ↗ Building agricultural rural roads, crossing points, bridges and Irish bridges which facilitate the movement of people, animals, products and agricultural inputs.
- ↗ Establishing state-based primary cattle, vegetables and fruit wholesale markets. In addition, quays for cattle and plant products would be established at standards that meet quality and safety criteria. Laws and regulations will be issued for these markets to organize their work, taking into account marketing, storage and export facilities such as grain silos, quarantines, slaughterhouses, cooling, packaging, classification, and grading services to ensure marketing efficiency of agricultural and animal products.

**Third:** The programme includes projects for capacity building of producers and institutions, namely:

- ↗ Realizing qualitative transformation of producers through raising their productive efficiency in using modern technologies as well as developing their administrative capacities.

- ↗ Completing institutional reforms including the transformation of producers' unions to qualitative unions which place the issues of productivity and sustainable agricultural development at the top of their priorities.

**Fourth:** The programme proposed addressing land issues aiming at encouraging agricultural investment and sustainable land use through:

- ↗ Registering the agricultural land and defining the citizens', villages' and groups' rights.
- ↗ The rest of the land will be registered under government ownership and made available to investors.
- ↗ Setting equitable rules for land lease and rent and reviewing existing relevant laws.

**Fifth:** The programme focused on the development of the supporting services through:

- ↗ Enhancing and developing hydrological, plant, animal and industrial scientific research through building capacities, training of researchers, as research constitutes the spearhead for realizing the Agricultural Revival.
- ↗ Enhancing the capacity of technology transfer and extension services using the village as a center for providing services and agricultural knowledge, in addition to introducing and adopting successful technologies aiming at increasing the productivity and improving the quality of products.
- ↗ Rectifying agricultural education curricula and focusing on technical and technological education.
- ↗ Enhancing the capacity of information and informatics institutions by providing them with up-to-date technologies and conducting the basic surveys particularly the comprehensive agricultural census (plant and animal).

**Six:** The Programme emphasized the development and upgrading of agricultural systems through:

- ↗ Raising the efficiency of the existing irrigated schemes by upgrading irrigation management and systems, rationalizing water use, developing field irrigation, crop intensification, and integrating plant and animal production with conservation of forests, range and pastures.
- ↗ Introducing modern types of animal and fishery production such as intensive rainfed and irrigated pasture farmer and ranches, aquaculture, as well as establishing wildlife reserves.

**Seventh:** The programme targeted the protection and development of natural resources through the following:

- ✧ Developing forests and pastures as well as restoring the vegetative cover.
- ✧ Combating desertification
- ✧ Developing the gum arabic belt.
- ✧ Establishing reserves and preserving wildlife.

**Eighth:** The programme included significant interventions to develop agriculture-based industrialization, including the utilizing of the idle capacities of the agro-industries.

**Ninth:** The programme underscored the importance of establishing international strategic partnerships with a view to transferring technologies, training, capacity building, expanding and developing markets.

**Tenth:** This programme is intended to create a conducive atmosphere for mobilizing the whole community and encouraging its participation in the agricultural activities, noting that the programme gives a greater support to the private sector capabilities by empowering it to play a greater role in the implementation of the programmes.

**Eleventh:** The programme recommended establishing agricultural commodity development councils (plants and animals) as a successful instrument used by many commodity-dependent countries for realizing the integration of the different activities in the commodity production and marketing chain through bringing together all the stakeholders concerned with the commodity in the areas of research, training, production, marketing, manufacturing, consumption and export. The programme also proposed functions and powers for these councils and some guidelines for their work.

**Twelfth:** The programme included a supervision and follow up mechanism chaired by H.E. the Vice President, in addition to a High Council for Agricultural Revival, and a General Secretariat responsible for mobilizing and following up revival programmes and projects including the commodity councils.

**Thirteenth:** The total cost of this programme during 2008 – 2011 is estimated at 10.1 billion SP: 2.4 billion SP for 2008, in addition to 2.5 billion for 2009, and same amount for 2010, and finally 2.7 billion SP for 2011. It is noteworthy that the contribution of the government constitutes 1.36 billion SP in the year 2008, (approved in the budget) and the cost required in 2009 is estimated at 1.34 billion SP and decreases to 1.1 and 1.0 billion SP in 2010 and 2011 respectively.

**Fourteenth:** Investing in infrastructure is given top priority at 39.4% of the developmental appropriations allocated for the programmes and projects during 2008, followed by food security, poverty reduction and rural development at 34.4%. developing and protecting natural comes in the third place at of 9.8% then comes the support services on the fourth place and the export infrastructure comes in the fifth place at 7.5% and 6.6% respectively. Capacity building, improving and upgrading agricultural systems and commodity councils take the rest of the appropriations.

**Fifteenth:** The total finance of programme amounts to 2905.15 million SP during 2008 and will rise gradually to reach 3422.74 million SP in 2011. This includes governmental contribution, foreign, bank-lending and self-financing in addition to the agricultural season's subsidies.

Total government financial contribution is estimated at 1279.4 million SP in 2008 and will decrease to 764 million SP in 2011 (from 44% to 22%). Foreign finance, including grants and loans to agricultural project from regional and international finance institutions will increase from 286 million SP to 385 million SP (from 9.9% to 11.1%). Finance by commercial banks will increase at an annual rate of 25% from 800 million SP to 1560 million SP (from 27.5% to 45.6%). Agricultural subsidies will decrease, with the improvement of infrastructure and supporting services, from 208 million SP to 120 million SP. Financing from farmers' own resources will increase from 540 million SP to 720 million SP (from 18.6% to 21.0%) during the same period. Self-financing may perhaps exceeds these estimates since the increase in productivity resulting from the implementation of the programme will improve the productive capacities of the producers to finance their agricultural activities.

**Sixteenth:** The programme is expected to achieve tangible results, most significant of which is the development of the farming systems and the generation of job opportunities in the agricultural sector, the agriculture-led industrial sector and the related service sectors. By introducing participatory methods of natural resources management, the programmes will also ensure sustainable use of these resources and reduce conflicts over them. Consequently the country will be able to reach self-sufficiency in those crops in which it enjoys a competitive edge, namely sorghum, millet, fruits and vegetables, oil seeds, livestock products, poultry and fish. Enough raw materials will also be produced to satisfy the existing idle capacity in the agro-industries.



**Seventeenth:** In terms of import substitution the realization of self-sufficiency in wheat will be a significant achievement of the programme. The value of wheat produced is estimated at US\$ 1.15 billion. The present import bill of US\$ 599 million will turn into a surplus of US\$ 36 million by 2011. In the case of sugar, the deficit will decrease from US\$ 84 million in 2007 to US\$ 51 million in 2011 in spite of the expected increase in the population and the changing patterns of consumption towards sugar-based products as a result of increasing urbanizations. The increase in the production of these commodities will be an outcome of the package of key agricultural and livestock projects and the incentives which will be offered to investors.

**Eighteenth:** In the area of export promotion, the country will produce a minimum surplus of 2.4 million tons of sorghum annually. The current surge in the prices of cereals and the preferential prices paid by the Saudi Government to importers of cereals open windows of opportunity for export of sorghum. Similarly, exports of sesame are expected to increase from its current level of US\$ 174 to US\$ 360. Export karkade and watermelon seeds are expected to reach US\$ 52 million, while groundnuts exports are expected to earn US\$ 615. Proceeds of exports of fruits, vegetables fodder, and gum arabic are also expected to increase. In the case of cotton the expected increase in demand and prices in the international market will induce a greater supply through the increase of the area planted in the irrigated and rainfed sectors. Cotton export proceeds are expected to amount to US\$ 884 million. All in all, the total export earnings of all crops is expected to reach US\$ 4.5 billion in 2011 as shown in the annexes to this report.

**Nineteenth:** The export proceeds of the livestock sector are expected to increase from an estimate of US\$ 274 in 2008 to US\$ 635 million in 2011 (excluding boarder trade). The export proceeds of cattle, sheep, goats and camels will increase from US\$ 11.8 million, US\$ 141.3 million, US\$ 5.2 million and US\$ 33.6 million in 2008 to US\$ 129 million, US\$ 276.4 million, US\$ 12.8 million and US\$ 48.5 million in 2011 respectively. The export proceeds of fish, tauna and shrimp will increase from US\$ 4 million, US\$ 10 million and US\$ 30 million in 2008 to US\$ 10 million, US\$ 30 million and US\$ 60 million in 2011 respectively. The exports proceeds of hides and skins will increase from US\$ 38.9 million in 2008 to US\$ 68.4 million in 2011.

## **1. Introduction**

The sustainable use of the huge and diverse agricultural resource potentials in the Sudan with a view to enhancing the welfare of its people has been a great hope and a moving target since the time of independence. These resources are envisaged, not only to meet the domestic requirements for food security, employment and foreign exchange earnings but also to enable the Sudan to offer significant contributions to regional and international trade and food security. However these expectations have yet to be fulfilled pending a real breakthrough to achieve a comprehensive agricultural development.

Taking the political, economic and social development of the Sudan into perspective, it is imperative that these resources be utilized earnestly to achieve a comprehensive agricultural development. Agriculture is the source of income and livelihood for the rural people, the engine of growth for the other economic sectors such as trade, industry and transport. The ultimate results of agricultural development would be the generation of job opportunities, rendering the rural areas more habitable, reducing poverty and striking a balanced distribution of the benefits of development between the different states and localities through giving more attention to the least developed ones.

The advent of the petroleum era in the Sudan, since the turn of the last century, and the negative phenomenon which accompanied its exploitation underscored the necessity and urgency for emphasizing the development of the agricultural and industrial sectors. Now petroleum resources constitute 50% of public revenue and 85% of the foreign export earnings. Heavy dependence on petroleum involves serious risk to the Sudanese economy because of the fluctuations in its international prices and because of the fact that it is a none-renewable resource liable to depletion. In addition, investment of oil revenues in urban development, if associated with the neglect of the agricultural sector, leads to rural exodus to the urban sector.

Taking these developments into consideration, the government must undertake urgent and serious actions to bail out the Sudanese economy from the distortions inflicted upon it by the current petroleum policy. These actions should aim to ascertain agriculture and industry as the leading sectors of the economy.

This strategy necessitates prompt actions designed to increase the efficiency of the agricultural sector and agriculture-led industries with a view to enhancing the competitiveness of Sudanese commodities in local and international markets in preparation for accession to the World Trade Organization (WTO).

Mindful of all these facts and developments, the Government of National Unity (GNU) committed itself to the strategic option of achieving sustainable agricultural development. An evident expression of this political will is the declaration of the "Green Mobilization" in 2006 and the adoption of the Strategic Five-Year Plan (2007-2011). For further strengthening and development of this thrust, the Council of Ministers issued its Resolution No. 173, 2007 for the formation of the High Committee for the Study of the Current Situation in the Agricultural Sector and the Proposal of Appropriate Visions for its Future Development. The high committee is formed under chairmanship of his Excellency Ali Osman Mohamed Taha the Vice President. The committee is entrusted to come up with practical and executable visions, taking into consideration the Green Mobilization and the five-year Strategic Plan as main references.

## **2. The Methodology for the Preparation of the Executive Programme for the Development of the Agricultural Sector**

The membership of the committee is comprehensive involving all stakeholders concerned with the development of the agricultural sector including politicians, executives, producers, university professors, researchers, private sector, civil society organizations, farmers' and pastoralists' unions.

The methodology adopted by the committee to fulfill its terms of reference was as follows:

- (a) Formation of five specialized subcommittees to prepare comprehensive reports covering all issues specified in the TOR. The committees were:
  - The committee for diagnosing the current situation in the agricultural sector.
  - The committee for analyzing the crop mix and the requirements of food security and export.
  - The committee for increasing productivity.
  - The committee for agro-based industrialization
  - The commodity concerning policies supporting agricultural development.
- (b) Holding intensive meetings for the high committee with all its members at the Secretariat of the Council of Ministers to discuss the following:
  - The visions and proposals focusing on reforming agricultural policies and programmes.
  - The drafts of papers prepared by the five subcommittees.
- (c) Using the objectives and programmes of the Green Mobilization and the Strategic five Year Plan as the basic references.
- (d) Review of successful experiences of agricultural development in several countries including China, Malaysia, Brazil, South Korea, India and Vietnam.
- (e) The programme gives priority to those projects which benefit the majority of the people in the rural areas such as water harvesting projects which can give quick results within a short period of time.

Another approach to distribution of the benefits over the whole rural sector is the programme concerned with the commodity developments. This programme aims at developing the rural sector through increasing productivity, increase value added and improve marketing of eighteen major commodities on which rural communities in the different parts of the country depend.

- (f) Formation of a committee for drafting the main report. This committee drafted the main report and identified the programmes and projects which formed the executive programme for Agricultural Revival in the country. It is considered an advanced consolidated version of the Green Mobilization document. In the final analysis, this programme is the national strategic plan for agricultural development. It is the reference for the correction and streamlining of the programmes and plans of the ministries and corporations at the federal and state levels. It involves a system for monitoring and evaluation.

### **3. Diagnosis of the Existing Situation in the Agricultural Sector**

A diagnosis of the current situation in the agricultural sector is using SWOT analysis. This approach explores the weaknesses and strengths in the performance of the sector, opportunities for development and the threats involved.

#### **3.1. Strengths:**

- ✧ Vast agricultural lands suitable for cultivation.
- ✧ Huge livestock resource potential and a sizable reservoir of fish resources.
- ✧ Water resources from rainfall, rivers and underground aquifers sufficient to meet the requirements of the livestock population, fishery resources and raising of different crops and increasing the areas under forests and pasture.
- ✧ Generations of trained manpower capable of leading the process of agricultural development.
- ✧ A strategic geographical location which facilitates the marketing of agricultural and livestock commodities in the regional and international markets.
- ✧ Commitment and a political will for equitable and sustainable socio-economic development.
- ✧ The adoption of the federal system of government encouraged the participation of local communities in national development programmes.
- ✧ Improvement of infrastructure such as roads, communication technologies, electricity, silos, quarantines and abattoirs helps promote free market mechanism and sends signals to producers to increase products coming to the markets and increase productivity.
- ✧ The distribution of agricultural faculties all over the country will provide trained manpower in all areas of specialization required by the programme.

#### **3.2. Weaknesses (Opportunities for change)**

- ✧ Low levels of productivity to all factors of production
- ✧ Producers are trapped in traditional systems of production resulting in underdevelopment and weak technical, managerial and financial capacities of the producers.
- ✧ The existing infrastructure are not commensurate with the requirements of the agricultural development.
- ✧ Inadequacy of the procedures which control the quality of products, and sanitary and phytosanitary measures which safeguard food safety.
- ✧ Lack of strict measures to apply regional and international agreements on capacity building and enforcement of standards.

This jeopardizes the competitiveness of Sudanese products in local and international markets.

- ↗ Out-dated systems of production in the agricultural sector due to absence of a holistic vision of agricultural development.
- ↗ The preparation of agricultural plans lacked the scientific and operational approaches. For instance, projections of production and exports lacked precision and were often exaggerated.
- ↗ Lack of application of the recommendation research finding.
- ↗ Lack of coordination of policies between the various resource users.
- ↗ Weak research and extension services and shortage of improved seeds.
- ↗ Lack of capacity to produce agricultural inputs locally.
- ↗ Weak linkages between stakeholders deprived local communities of the opportunity to participate in policy making and to reap the benefits of a balanced rural development.
- ↗ Deep-rooted rivalries between professional and trade union organizations hampered the cooperation needed for optimal use of agricultural resources.

### **3.3. Opportunities:**

- ↗ The current economic stability, reflected in a single digit inflation rate and a stable exchange rate, provides a conducive climate for investment in the agricultural sector.
- ↗ The realization of peace and security, following the signing of the Comprehensive Peace Agreement (CPA) will encourage settlement in the rural areas and avails resources for the development of the rural sector.
- ↗ The increase in oil production and revenue provides an important source of financing rural infrastructure and agricultural inputs.
- ↗ The production of oil and its by-products paves the way for the development of agro-chemical industries in the country, namely fertilizer and insecticides industries.
- ↗ The change towards an open economy creates a conducive environment for going into partnership with the international community, especially sister and friendly countries and investors in general. These partnerships will help in the transfer of technology, training and access to niche markets for high value and organic products.
- ↗ Public awareness of the fact that agriculture is the main source of rapid and balanced growth has increased dramatically.
- ↗ Utilization of the share of the Sudan in the Nile waters efficiently and effectively.

- ↗ Application of water harvesting technologies on a large geographical scale.
- ↗ Utilization of forward and backward linkages between agriculture and industry.
- ↗ The strategic location of Sudan in Africa and the Arab World and its proximity to Europe makes it a potential centre for agricultural trade.

### **3.4. Threats:**

- ↗ The policies, institutions and procedures which control financing are not suitable for financing agricultural producers, especially smallholders, nor is it appropriate for financing infrastructure.
- ↗ Climatic changes resulting in fluctuations of production and productivity.
- ↗ 85% of the animal resources depends on pastoral and transhumant systems of production, which render the provision of services and the transfer of technology needed for improvement difficult.
- ↗ Trade barriers established by developed countries to protect their producers limit access to their markets.
- ↗ The continuous deterioration of natural resources has a negative impact on the settlement of livestock producers and the development of the national herd. It is also associated with insecurity and tribal conflicts over resources.

### **3.5. Analysis of the Political, Economic, Social and Technological Environment:**

The most important national, regional and international factors affecting agricultural development are:

- ↗ The political stability and security resulting from the implementation of the CPA has induced economic stability resulting in a higher rate of growth, low inflation rate and the creation of an environment conducive to a balanced and sustainable development based on agriculture.
- ↗ The favourable geographical location of Sudan in Africa and the Arab World and its membership in the African, Arab and international organizations qualify it for an important role in regional food security
- ↗ Agriculture is the main sector for the Sudanese economy and the main source of income and livelihood for 70% of the population.
- ↗ The development of the agricultural sector ensures general peace, food security and settlement of people in the rural areas, and it is the easiest and most effective means for poverty reduction.
- ↗ The phenomena of poverty, tribal conflicts and the claims of marginalization are evidences of the poor performance of the agricultural sector.



## **4. Preparation of the Strategy**

The strategy for agricultural development consists of the following components:

### **4.1. The Vision:**

A comprehensive national socio-economic development led by a dynamic agricultural sector capable of rapid and sustainable growth and biased towards the weak and vulnerable sectors of the population.

### **4.2. The Mission:**

The overall mission of the agricultural development strategy is to transform agriculture from a sector dominated by subsistence production to a modern sector responsive to market signals and with substantial contributions to poverty reduction, growth, foreign exchange earnings and sustainable management of natural resources. This mission will be fulfilled through:

- Create the environment conducive to sustainable development of agricultural productivity and production through the implementation of conducive macro and sectoral policies which promote investment, develop infrastructure for water harvesting and irrigation storage capacities of the Nile waters, build feeder roads, establish livestock routes and provide marketing infrastructure.
- Build the capacities of producers through reforming their institutions, increasing their productive and managerial capacities.
- Resolve the land tenure issues which discourage optimal use of large areas in the irrigated and rain-fed sectors.
- Improve the agricultural support services including the development of the agricultural research, technology transfer and extension services, agricultural education, establishment and upgrading of markets, strengthening of information and communication technologies, adoption of measures of risk aversion and expansion of agricultural insurance services.
- Develop and modernization of agricultural systems with a view to increasing the efficiency of utilization of resources through increasing crop intensity, improving marketing efficiency, value addition through processing and introduction of new systems of livestock and fishery production, including irrigated farms and wildlife reserves.
- Protect natural resources through the development of forests, pastures and range lands and re-establishment of the vegetative cover and the development of the Gum Arabic Belt and the combat of desertification.

- ⇒ Build the capacities of the industrial sector to manufacture agricultural inputs, satisfy agro-industries with their requirements of raw materials, connect the production processing – marketing chain and utilize the ideal capacities in the agro-industries.
- ⇒ Protect consumers and promote exports, by implementing the laws and procedures which ensure food safety and control of the quality of plant and livestock products whether processed locally or imported in accordance with the accredited international standards
- ⇒ Go into strategic partnerships with a view to realizing the economies of scale, benefiting from new technologies, and getting access to international markets and financial institutions.

### **4.3. Strategic Objectives**

- ⇒ Promotion of exports of crops and livestock with a view to safeguarding against the risks of collapse of the whole economy as a result of the distortions emanating from over-dependence on oil revenues.
- ⇒ Increasing productivity and efficiency at the production and processing stages.
- ⇒ Realization of food security.
- ⇒ Reducing poverty to 50% by 2015, generation of job opportunities and increasing per capita income.
- ⇒ Achievement of balanced growth in all regions of the country with the view to encouraging settlement in the rural areas.
- ⇒ Development and protection of natural resources to ensure its renewal and sustainability.

## **5. Key Factors of Success**

The achievement of the agricultural revival will rest on the following nine successive factors:

- ↗ Creation of an environment conducive to production.
- ↗ Capacity building
- ↗ Land use
- ↗ Support services
- ↗ Development and modernization of agricultural systems
- ↗ Protection and development of the natural resources
- ↗ Agricultural industrialization
- ↗ Implementation of quality control and safety measures
- ↗ Strategic partnerships

### **5.1. Conducive Production Environment**

A conducive environment for increasing production and productivity consists of concerted macro and sectoral policies, sustainable management of natural resources and establishment of adequate infrastructure.

#### **5.1.1. Macro and sectoral policies**

These policies should aim to achieve the following objectives:

- ↗ Adequacy, stability and sustainability of growth of the sector and the economy as a whole.
- ↗ The important role of the financing sector in mobilizing resources to the agricultural sector.
- ↗ Availability of domestic and international financial resources and expansion of agricultural insurance in terms of beneficiaries, geographical areas and farming systems.
- ↗ Elimination of policies which have distortive effects on production and trade.
- ↗ Equitable distribution of the benefits of agricultural revival between the states.
- ↗ Achievement of food security and poverty reduction.
- ↗ Sound and sustainable management of natural resources

Matrices A through S present the policies which must be implemented so as to prepare the ground for the intended agricultural revival.

## A. Economic and Financial Policies:

Policy	Lead Agencies	Time Frame	Starting Date
⇒ Macroeconomic stability	MFNE, NBS	Continuous	
⇒ Allocate at least 20% of public expenditure for building and modernization of agricultural and livestock infrastructure and advancement of technological innovation.	MFNE	Annually	March 2008
⇒ Approve and implement partnerships in integrated crop /livestock /processing projects with foreign investors.	MFNE, MAF, MAR,MNI	Continuous	Jan. 2008
⇒ Provide local Gov. contribution to donor- funded agricultural revival projects ⇒ Upgrade capacity of national banks ⇒ Establish portfolios to finance agriculture	MFNE	Continuous	Immediate
⇒ Prepare bankable projects for finance by foreign financial institutions	MFNE and other related parties	Continuous	2008
⇒ Seek finance from bilateral sources	MIC and MFNE	Continuous	2008
⇒ Political and diplomatic initiatives to ensure financial flows for the revival programme	MIC and MFNE	Continuous	
⇒ Sustainable and encouraging investment policies	Council of Ministers	One month	Immediate
⇒ Increase insurance coverage with emphasis on agricultural and livestock commodity exports ⇒ Allocate some resources from the Risk Management Fund to smallholders as a guarantee for finance of food security commodities	MFNE, Insurance Companies, Risk Management Fund	Continuous	Feb. 2008
⇒ Allocate a certain percentage of ABS resources as marketing credit for smallholders	MFNE, Producers' Union	Continuous	Feb. 2008
⇒ Build financial and administrative capacities of the Risk Management Fund and agricultural insurance companies	MFNE, Risk M Fund	Continuous	Feb. 2008
⇒ Commitment not to impose any taxes on the agricultural sector (crops, livestock), and not to impose any levies unless against services	MFNE, States, localities, corporations	Continuous	Continuous

<b>Policy</b>	<b>Lead Agency (ies)</b>	<b>Time Frame</b>	<b>Starting Date</b>
⇒ Collection Zakat from smallholders at village centers to cover the debts of those who fail to repay ⇒ Direct Zakat Chamber to determine the quantity of Zakat to be paid by a producer in the rainfed sector on the basis of net returns ⇒ Direct the Zakat Chamber to collect zakat from exporters on the basis of the final annual accounts	Zakat Chamber	Continuous	Immediately
⇒ Collect zakat on livestock in the field and avoid double collection on livestock on the move or those in transit between states. It is preferable to fix a specific period for collection of zakat in all states in the North.	Zakat Chamber	Continuous	Immediately

**B. Financing Policies:** (Refer to annexes on Institutional Bank Lending and Financing of Investment Project)

<b>Policy</b>	<b>Lead Agency (ies)</b>	<b>Time Frame</b>	<b>Starting Date</b>
⇒ Finance infrastructure from Government budget	MFNE	Continuous	Immediately
⇒ Finance research, extension and technology transfer, early warning and pests control, diseases and epidemics at national level	MFNE, private sector	Continuous	Immediately
⇒ Facilitate procedures to allow private sector participate in service provision	MFNE, NBS		
⇒ Finance agricultural operations			
⇒ Increase agricultural credit allocated by ABS for smallholders by at least 100%			
⇒ Adopt the village centre as an instrument to promote the "mobile credit"			
⇒ Direct internal soft loans to the specialized banks			
⇒ Give priority in finance to producers organized in production and marketing organizations.			
⇒ Provide short-term finance to vegetable growers, medium-term to fruit growers and livestock owners and long-term finance for storage and refrigerated transport for horticultural, dairy and meat producers.			

<b>Policy</b>	<b>Lead Agency (ies)</b>	<b>Time Frame</b>	<b>Starting Date</b>
⇒ Scale up the establishment of commercial banks, portfolios guaranteed by NBS to finance the agricultural sector ⇒ NBS, specialized banks, Savings Bank to scale up micro-credit to finance agricultural production	NBS	Continuous	Immediately
⇒ Earmark an increasing share of at least 20% from ABS sources to finance livestock and fisheries development projects	NBS, MFNE		Immediately
⇒ Provide medium-term finance for poultry production and long-term finance for dairy, meat and inputs for production and processing	NBS	Continuous	Immediately

### **C. Marketing Policies**

Mindful of the importance of marketing for the production process, the agricultural revival program embraces programmes for supporting marketing activities in line with the privileges granted by the WTO and the commitments of the Sudan towards regional and international organizations. The vision for the development of marketing of crops and livestock is based on the following strategies:

- ⇒ Expand and distribute wholesale markets, especially for horticultural crops on a wide scale and provide the necessary services to help it to operate efficiently.
- ⇒ Rehabilitate livestock markets and provide support services such as water, feeds and quality control.
- ⇒ Encourage establishment of producer organizations to facilitate marketing, including provision of finance for marketing operations.
- ⇒ The government is to arrange strategic partnerships between the local private sector and the foreign private sector for the production and processing of dairy products, meat, fish, fruits and vegetables.

### C. Marketing Policies

Policy	Lead Agency (ies)	Time Frame	Starting Date
⇒ Give priority in finance and implementation for export-oriented projects so as to maintain traditional markets, access new markets and increase competitiveness, control food safety through SPS measures and adopt HACCP system and promote organic production for export	Relevant ministries, private sector	Continuous	In progress
⇒ Implement an effective strategy and contacts, targeting specific markets for commodities with competitive advantage ⇒ Use commodity exchange.	Build capacity of MFT to undertake this role effectively	Continuous	Immediately
⇒ Direct Sudanese diplomatic missions to consider promotion of Sudanese exports as one of their important tasks.	MFA, Commodity Development Councils		
⇒ Grant maximum incentives provided by the Investment Encouragement Act for investment in storage, refrigerated and dry transport, abattoirs, grading and packaging.	States, localities, relevant ministries and <b>parastatals</b> , private sector	Continuous	Jan. 2008
⇒ Protect producers and exporters from unfair competition using the privileges granted by the Agreement on Agriculture implemented by WTO.	MAF, MAR, other relevant bodies	Continuous	Immediately

### D. Agricultural Investment Policies

Policy	Lead Agency (ies)	Time Frame	Starting Date
⇒ Implement a separate investment act for strategic partnerships in agricultural production and processing	Ministry of Investment, MAF, MOAR, state ministries of agriculture	continuous	Jan. 2008
⇒ Benefit from Arab investment guarantee organizations to facilitate financing of agricultural development projects	MFNE, Ministry of Investment, MIC	continuous	

## E. Institutional Reform

Issue	Components	Lead Agency (ies)	Starting Date
⇒ Restructuring the ministries of the agric. Sector at the federal & state levels	Agricultural policies and planning, research and technology transfer, international cooperation, capacity building	Council of Ministers	Immediately
⇒ Complete institutional reform in the Gezira Scheme	Training water user associations, form producer organizations and train their members	Council of Ministers, MFNE	Continuous
⇒ Reform existing irrigation schemes and those under establishment	Implement recommendations on institutional reform of the Rahad, New Halfa and Suki schemes made by a ministerial committee in 2007	MAF	Continuous according to recommendation
⇒ Institutional reform of semi-mechanized rain-fed sector	Preparation of a study by a consultant firm under the framework of JAM Evaluation and implementation of the results of the study	MAF, MAR, MFNE, the states	To be completed in 2008

## D. Land Use Policies

Policy	Procedures	Lead Agency (ies)	Time Frame	Starting Date
⇒ Land policies in peace agreement	⇒ Ratification of land commission law ⇒ Establishment of the Land Commission ⇒ Wide participation of communities in resolving land issues	The Presidency	Up to 2011	Immediately
⇒ Legalization of peoples' land rights and demarcation and registration of the lands belonging to each village	⇒ Completion of listing and registration of agricultural lands in the states around population settlements ⇒ Resolve conflict over land and determine present and future land rights	The States	6 months	Immediately
⇒ Facilitation of access to land by investors	⇒ Listing of lands remaining after determination of the property rights of villagers and village boundaries as no man's lands to be allocated to investors.	The states	6 months	April 2008
⇒ Land use plan	⇒ Multi-disciplinary team to study the lands and natural resources of Sudan	MAF, Survey Dep., MAR and related parties	2 years	Jan. 2008
⇒ Building institutional capacities to manage lands	⇒ Committees to survey existing institutions, identify roles and institutional gaps and recommend remedies	Council of Ministers	3 months	First quarter of 2008



## G. Agricultural Legislations

Policy	Lead Agency (ies)	Time Frame	Starting Date
<p>⇒ Commit providers of fertilizers, insecticides and agricultural machinery to following the standard operating procedures which protect environment, public health and food safety until the appropriate laws and regulations are ratified and applied.</p> <p>⇒ Continue to improve the legal environment which supports and facilitates agricultural activities, especially the optimal geographical locations for plant and livestock species and products and control of bio-piracy of genetic resources.</p> <p>⇒ Expedite streamlining national efforts to establish a framework for intellectual property rights according to international standards.</p> <p>⇒ Prepare the laws required to implement the agreement on genetic resources of food and agriculture</p> <p>⇒ Prepare laws commensurate with the Agreement on Biodiversity</p> <p>⇒ Expedite updating and ratification of the agric. Laws which ensure the precise implementation of this law (see annex)</p>	The Council of Ministers, the Ministry of Justice and other related ministries	6 months	immediately

## H. Agricultural Education Policies

Policy	Lead Agency (ies)	Time Frame	Starting from
<p>⇒ Develop agricultural curricula for high education to meet the needs of the revival programme and integrate agricultural and veterinary sciences in the curricula of the comprehensive schools.</p>	Ministry of General Education, Ministry of High Education and Scientific Research		June 2008
<p>⇒ Encourage successful students to enroll in professional and technological agricultural specializations through upgrading their salary scales and fringe benefits and improving the system of promotion</p>			

## **I. Reduction of Production Cost Policies**

The cost of production of agricultural and livestock commodities in the Sudan is higher relative to other countries. This fact coupled with low productivity has weakened the competitiveness of the Sudanese commodities in the local and international markets. To overcome this problem, the Ministry of Finance and National Economy, in consultation with other concerned parties, decided to subsidize the prices of inputs as from 2007/2008 season. This policy replaces the policy of direct commodity price subsidy followed in the past. Consequently, the procurement prices of insecticides are subsidized by 25%. The prices of both gasoil and fertilizer are subsidized by 22%. Other subsidies include the provision of wheat seeds and rain-fed cotton seeds free of charge, supporting agricultural research and technology transfer and subsidizing the cost of finance of agricultural tractors and inputs by 50%. In addition, all agricultural inputs are exempted from custom duties, business profit tax and other levies.

Government support to the livestock sector is focused on infrastructure and support services. To develop the livestock infrastructure, the government will construct hafirs and dams to provide drinking water, and provide production inputs and transfer of technologies. In addition, the government provides mobile clinics and vaccination and inspection campaigns and support livestock research.

These policies are anticipated to increase productivity and reduce the cost of production and improve the competitiveness of Sudanese commodities in the internal and international markets.

To ensure that producers receive inputs at the subsidized prices, the following actions will be taken:

- ⇒ Guarantee freedom of the private sector to import inputs
- ⇒ Government will arrange a strategic relationships with input producers, especially producers of fertilizer and insecticides
- ⇒ Reform the system of procurement of fertilizer and insecticides including financing policies and terms of competition in tenders.

## J. Generation of Hydroelectric Power to Reduce Cost of Power Generation from Dams:

Project	Location	Generation capacity	Completion date	Cost in millionUS\$
⇒ Completion of Merewe Dam	⇒ Merewe, 350 km north of Khartoum	1250 MW, 10 power generating units	Oct. 2009	375
⇒ Merewe Irrigation Project (one million feddans)	⇒ From the fourth cataract north Dongola		5 years to complete	2000
⇒ Heightening of Rosares Dam	⇒ Blue Nile		7 years to complete	500
⇒ Kenana and Rahad Extensions Projects (1.6 million fed.)	⇒			1142
⇒ Upper Atbara Dam	⇒ Seteit and Atbara River	20 – 30 MW	6 years	800
⇒ Upper Atabra Agricultural Project (500,000 fed.)	⇒ East Atbaara River and west Kassala		6 years	500
⇒ Kajabar Dam	⇒ 70 km south Halfa	300 MW, 10 generating units		600
⇒ Dal Dam	⇒ Second cataract, Dal area	340 MW, 8 generating units		937
⇒ Sherik Dam	⇒ Sherik, Nile State	350 MW, 8 generating units		
⇒ Dagash Dam	⇒ Southern boarder of Mograt Island	285 MW, 8 units		
⇒ Mograt Dam	⇒ North Mograt Island	240 MW, 8 units		767
⇒ Sabaloka Dam	⇒ Sabaloka, 70 km north of Khartoum	120 MW, 8 units		451
⇒ Extension of Generating Station, Sennar	⇒ Sennar Dam	45 MW, 3 units		93
⇒ Kenana and Rahad Canals Inlets (after heightening Rosares Dam)	⇒ Rosares Dam at Kenana and Rahad Canals Inlets	339 MW, 8 units		1815
⇒ Fola Dam	⇒ 38 km from Nimoli	720 MW, 8 units		1360*
⇒ Shokli Dam	⇒ 40 km from Nimoli and 14km lower Fola Dam	210 MW, 4 units		696*
⇒ Laki Dam	⇒ 72 km from Nimoli and 24 km lower Shokli	210 MW, 4 units		696*
⇒ Baden Dam	⇒ 138 km from Nimoli and 66 km lower Laki	400 MW, 4 units		1600*
⇒ Minor Dams	⇒ Rural dams at various locations	42.5 MW generated by 6 dams		N.A.

\* Does not include the costs of resettlement of the population and transmission.

## K. Research Policies

Policy	Lead Agency (ies)	Time Frame	Starting from
<ul style="list-style-type: none"> <li>⇒ Set research priorities according to the agricultural revival programme.</li> <li>⇒ Adopt participatory approach for planning and implementation of research involving beneficiaries and other stakeholders.</li> <li>⇒ Permit introduction and adaptation of successful technologies on the basis of scientific criteria agreed upon until the procedures concerning Intellectual Property rights are put in place.</li> </ul>	High Council for Agricultural Revival	Continuous	immediately

## L. Technology Transfer and Extension Policies

Policy	Lead Agency (ies)	Time Frame	Starting from
<ul style="list-style-type: none"> <li>⇒ Use the village as a centre for providing agricultural services and finance.</li> <li>⇒ Earmark 15% of the posts approved annually for employing new agricultural graduates to those coming from the villages chosen as centers.</li> </ul>	MFNE, MAF, MAR and other related parties	Complete the study on Dec. implementation in 3 years	Jan. 2008
<ul style="list-style-type: none"> <li>⇒ Use mechanical harvesting on a large scale</li> </ul>	ABS, MAF	continuous	continuous

## M. Trade and Agricultural Export Policies

Policy	Lead Agency (ies)	Time Frame	Starting from
<ul style="list-style-type: none"> <li>⇒ Benefit from the regional partnership resources made available by WTO for East and South Africa and COMESA countries</li> </ul>	MFNE	continuous	Immediately
<ul style="list-style-type: none"> <li>⇒ Cancellation of all levies collected by the states, districts, trade unions and parastatals on commodity exports and inputs.</li> <li>⇒ Distinguish export promotion projects as strategic projects, with privileges granted by the Investment Encouragement Act.</li> </ul>	MFNE, The states	continuous	Jan. 2008
<ul style="list-style-type: none"> <li>⇒ Expedite approval of the laws on competition, dumping and organization of foreign trade</li> </ul>	Export Promotion Agency	continuous	Jan. 2008

## N. Empowering Women to Participate in Agricultural and Rural Development

Policy	Procedures	Lead Agency (ies)	Time Frame	Starting from
⇒ Build capacity of women to organize producer and service organizations including small scale processing	Generalize the successful experience of rural and bedwin women in the Gezira State to other states	MAF, MAR, the states, Ministry of Social Welfare, Women & Children	Continuous	Feb. 2008
⇒ Access women to assets and agricultural services through short term low cost credit	Affordable credit guarantees for women and access to subsidized inputs	NBS, ABS and commercial banks	Continuous	Feb. 2008

## O. Information and Informatics Policies

Policy	Lead Agency (ies)	Time Frame	Starting from
⇒ Continue development on information systems through collection, analysis and publication to support policy decisions.	Agricultural Sector Ministries	Continuous	
⇒ Development of early warning systems on food security	MAF, MAR, related institutions	Continuous	June 2008

## P. Agricultural Cooperation Policies

Policy	Lead Agency (ies)	Time Frame	Starting from
⇒ Strengthen the role of agricultural cooperation as civil society organizations, and review current laws and by-laws to reflect this fact ⇒ Confine the role of the government to capacity building, awareness raising, regulation, research and technology transfer	Council of Ministers in consultation with other parties	One year	First quarter of 2008

## Q. Utilization of Idle Capacities in the Agricultural Sector

Policy	Components	Lead Agency (ies)	Time Frame
⇒ Cancel the leases of an reallocate idle investment projects	Identification of idle projects in the rainfed semi-mechanized sector, cancellation of licenses and reallocation to new investors	The states	2008
	Identification of idle projects in the irrigated sector, cancellation of licenses and reallocation to new investors	The states	2008

## R. Agricultural Processing

Policy	Lead Agency (ies)	Time Frame	Starting from
⇒ Government financial and technical support to assist small scale household industries to add value	MFNE, relevant states		Immediately
⇒ Plan and establish industrial areas for leather industries	States' Governments		Immediately
⇒ Encourage use of composite flour based on results of the research undertaken by Shambat Food Research Centre	MNI, MAF, Shambat Food Research Centre	continuous	Immediately

## S. Utilization of Idle Capacities in the Industrial Sector

Policy	Components	Lead Agency (ies)	Starting from
⇒ Preparation of an emergency programme to utilize idle capacities in the industrial sector	⇒ Seek strategic partnerships between the local and foreign private sectors. ⇒ Provide investment capital for the programme, ⇒ Provide operational capital for the programme. ⇒ Protect local industries from dumping.	MFNE, MNI	4 years starting Jan. 2008
	⇒ Form a high committee for utilization of the idle capacities in the industrial sector to oversee the programme	Council of Ministers	Immediately

### 5.1.2. Basic Infrastructure

The infrastructure considered basic and necessary for a conducive environment for agricultural development include:

- ⇒ Construction of roads, electricity generation and development of communications.
- ⇒ Provision of public services including health care, education, safe water and low cost transportation in production areas.
- ⇒ Scaling up of water harvesting programmes by utilizing rainfall water to recharge underground water reservoirs, develop animal resources, improve pastures and restore range and forest cover.
- ⇒ Construction of water storage and irrigation infrastructure
- ⇒ Ensuring per capita water requirements and provision of irrigation for poverty reduction and food security activities in the rural areas and digging artesian wells along pastoral routes.

- Intensifying the construction of agricultural roads in rain-fed agricultural areas to facilitate movement of products and inputs.
- Establishment of more bridges across the main Nile and the Blue and White Niles to connect agricultural projects with urban centres and facilitate transport of inputs and products.
- Activation and utilization of existing idle capacities based on economic and technical feasibility studies
- Encouraging the private sector to invest on transport and marketing infrastructure.
- Establishment of wholesale markets at the states for fruits, vegetables and livestock according to international standards and implementation of the laws and by-laws which organize and regulate its work, namely sanitary and phytosanitary measures, establishment of information systems and regulation of auctions.

## **5.2. Capacity Building**

Low efficiency of manpower is the most important factor contributing to the low agricultural productivity in the country, and it is a major challenge to agricultural revival. This problem is aggravated by the fact that agricultural institutions are deficient in technical and administrative capabilities. Therefore, the agricultural revival programme must focus on building individual and institutional capacities to achieve the following:

- Qualitative change in the attitudes of the producers through training and rehabilitation, taking into account the relevant successful experiences, and implementing policies which result in increasing producer income, and thereby encourage producers to stay in and improve their enterprises. This requires implementing the following strategies:
  - Making finance conditional on the use of improved technologies.
  - Building the capacities of insurance companies to assist in vertical and horizontal expansion.
  - Availability of scientific and economic information to help improve the productive and marketing efficiency of producers.
- Developing of the capacities of agricultural institutions as to be able to benefit from innovations in technology and management and lead the process of increasing production and productivity.
- Updating existing legislation concerning agriculture, livestock and agro-processing and draft new ones aiming at protection and sustainable management of natural resources and supportive of the key factors of success of the agricultural revival. In this context, the follows laws should be ratified and implemented effectively:
  - Rural development, food security and poverty alleviation Act
  - Special Safeguard Act

- The law on subsidies and assistance to support livelihood in the agricultural sector.
- ⇒ Implement the procedures which aim at making use of the programmes initiated by WTO to help least developed countries benefit from the international trading system, especially access to international markets.
- ⇒ Complete institutional reforms of the irrigated agricultural parastatals taking into account the recommendations of the ministerial committees formed for this purpose and the experience of the Gezira Scheme.
- ⇒ Implement the recommendation of the study on institutional reform of the semi-mechanized rain-fed sector.
- ⇒ Review the organizational structures of the agricultural sector and related sectors to assist these sectors meet the challenges and requirements of the agricultural revival strategy.

### **5.3. Agricultural land use**

The existing procedures and practices which control land use are not conducive to agricultural development. On the contrary these procedures and practices have jeopardized agricultural investment, especially foreign investment. To rectify this situation the following actions should be taken:

- ⇒ Study the existing land laws in consultation with the representatives of rural communities and derive lessons from successful local and international experiences.
- ⇒ Implement land use policies including:
  - Ratify the Land Commission and law and establish the Land Commission
  - Complete the land use map for the country
  - Legalize of land rights of the people and demarcate agricultural lands for each village.
  - Take stock of the lands free of any titles for allocation to investors.

### **5.4. Supporting Services**

The provision of supporting services, and the rehabilitation and development of the research systems and infrastructure, the training of scientists and building their capacities to cope with the rapid scientific developments at the local, regional and international levels, are key factors for agricultural development. To strengthen and upgrade these support services the following actions must be taken:

- ⇒ Introduce up-to-date equipment and technologies
- ⇒ Fill the shortages in trained scientists and ensure continuity and transfer of knowledge and experiences between generations in the scientific community.



- ↗ Keep scientists abreast of new technologies
- ↗ Enable research centers to prepare strategies for applied scientific research to serve the revival programme.
- ↗ Link scientists working in government institutions with those working in educational and scientific research institutes.
- ↗ Render the village the centre for dissemination of information and distribution of inputs, agricultural services, credit, training and extension through:
  - Implementation of research on farmers' fields
  - Strengthen the relationship between extensionists and agricultural researchers.
  - Train producers on the technological packages to improve agricultural and livestock production.
  - Adopt and use successful technologies to modernize farming systems and increase productivity.
  - Conduct educational programmes for sustainable development.
- ↗ Establish markets equipped with up-to-date technologies to ensure quality control, implementation of sanitary and phytosanitary and food safety measures.
- ↗ Build capacities in the area of information and communication technologies with a view to supporting the decision making process and disseminating information to producers, scientists and politicians.

### **5.5. Development and Modernization of Agricultural Systems**

Agricultural systems, including infrastructure, policies for resource management, technologies and husbandry practices remained stagnant for long and did not benefit from scientific breakthroughs in agricultural sciences. The revival programme seeks to make use of international technological innovations to improve and modernize these systems through:

- ↗ Modernization of irrigation systems including the application of agricultural precision technologies.
- ↗ Improvement of marketing and processing systems to increase the value added.
- ↗ Adoption of agro-forestry systems for integrating crops and forestry production.
- ↗ Developing and scaling up of production under protected houses.
- ↗ Developing tissue culture technology for multiplication of seeds and seedlings of such crops as dates, banana and potatoes.

## **5.6. Protection and Development of Natural Resources**

Natural resources are the most valuable assets of the country. If used rationally, these assets could induce sustainable socio-economic development. To play this role, natural resources should be developed and protected with a view to meeting the needs of the present and future generations. This requires:

- Development of forests, range and pastures and restoration of the vegetative cover.
- Rational land use to maintain soil fertility, prevent soil erosion and combat desertification.
- Development of the gum arabic belt.
- Maintenance and use of biodiversity.
- Management and protection of the environment from pollution.
- Facilitating the use of natural gas as a substitute for wood on a large scale in the rural areas.
- Promoting competition between the states in achieving high records of reafforestation and protection of the environment through the "Green State" initiative advocated by the National Forest Corporation.

## **5.7. Agricultural Industrialization**

Agricultural industrialization adds value to agricultural commodities, increase revenues from agricultural enterprises and strengthens the forward and backward linkages between the agricultural and industrial sectors through the complementarity of production chains, specialization, product differentiation and quality control. To achieve a breakthrough in agricultural industrialization, the following actions must be taken:

- Build the capacities of the agricultural sector through local processing and importation of basic agricultural inputs.
- Improve the forward and backward linkages between the agricultural and industrial sectors with a special emphasis on agro-based and agricultural and livestock food industries which add the highest values to the gross domestic product, and on small scale rural industries.
- Rehabilitate and modernize idle capacities in the agro-based industries with a view to achieving technical and economic efficiency. Special focus will be on food, weaving, textile, skin and hides and leather industries.

## **5.8. Implementation of Quality and Food Safety Standards**

In spite of the increased awareness of the necessity to comply with food safety and quality standards and the implication of that for the flow of Sudanese products in regional and international markets, the food regulatory bodies are technically weak and inefficient.

The law for establishing and accreditation council is yet to be issued. This delays issuance of the certificates of compliance with food safety standards of locally produced and imported commodities, and jeopardizes customer welfare. To correct this situation, the following actions must be taken:

- Expedite issuance of the accreditation law.
- Link the focal point for the Codex Alimentarius in the Ministry of Agriculture and Forestry with the Agricultural Research Corporation and the Livestock Research Corporation.
- Establish the National Council on Codex Alimentarius in the MSSO.
- Adopt the system: "Hazard Analysis Critical Control Point (HACCP)" which ensures food safety at all points in the food chain from the stage of production to final intake by the consumer.
- Develop and enforce legislations on food safety and coordinate between the regulatory bodies implementing these legislations.
- Develop national laboratories and build the capacities of the associated technical staff to be able to conduct the necessary analyses and be accredited internationally as reference laboratories.

## **5.9. International Partnerships**

International partnerships are important instruments for implementing the projects and programmes of the agricultural revival. These partnerships are envisaged to realize all or part of the following objectives:

- Provide or facilitate finance.
- Enable the country to compete effectively in international markets.
- Transfer new technologies and management systems.
- Increase productivity and quantity and quality of production.
- Increase efficiency and productivity of national producers
- Realize self-sufficiency in strategic commodities on the basis of technical, economic and social feasibility.

To achieve successful and effective partnerships, the followings are considered prerequisite:

- Design a special programme under the leadership of the presidency to supervise the implementation of these partnerships including making contacts with the leaders of the targeted countries and chief executive officers of multi-national companies.

## 6. The Action Plan for Programmes and Projects (2008 – 2011)

Table 1 shows the total cost of the action plan for the agricultural revival programme during the period 2008 – 2011. This cost includes the approved budget for 2008: whether approved through the public budgetary process or provided from resources availed specifically for the revival programme from the unallocated capital transfers earmarked for the northern states. The total cost of development programmes is estimated at 1.3 billion Sudanese Pound in 2008 (committed in the budget). The required appropriation for 2009 are estimated at 1.34 billion SP and will decline, gradually, to 1.1 billion and 1.0 billion SP in 2010 and 2011 respectively. The breakdown of the cost shows that investment on infrastructure ranks first claiming 39.4% of the development expenditure of the programme in 2008, followed by food security, poverty reduction and rural development, in the second place at 34.4%, development and protection of the environment at 9.8%, in the third place, supporting services in the fourth place at 7.5%, and marketing and export infrastructure in the fifth place at 6.6%. Capacity building, improvement and modernization of production systems and the commodity development councils account for 1.3% of the development budget.

Programme	Approved 2008	2009	2010	2011	Total	%share of Programs (2008)
Infrastructure	534.1	568	540	560	<b>2202.1</b>	%39.4
• Water harvesting	148.0	148	100	90	<b>486.0</b>	%10.9
• Irrigation & water Resources	284.6	350	400	450	<b>1484.6</b>	%21.0
• Agric. Roads & Bridges	101.5	70	40	30	<b>241.5</b>	%7.5
Capacity Building	4.0	5	3	2	<b>14.0</b>	%0.3
Support services	101.3	150	90	70	<b>411.3</b>	%7.5
Information and informatics	16.0	16	10	7	<b>49.0</b>	%1.2
Food security	467.2	400	300	250	<b>1417.2</b>	%34.4
Marketing and export	90.2	100	80	60	<b>330.2</b>	%6.6
Development & Modernization of Agricultural Systems	6.5	10	8	6	<b>30.5</b>	%0.5
Protection and Development of Natural Resources	133.8	90	70	55	<b>348.8</b>	%9.8
Commodity Development Council	4.0	4	4	4	<b>16.0</b>	%0.3
<b>Total</b>	<b>1357.1</b>	<b>1343</b>	<b>1105</b>	<b>1014</b>	<b>4819.1</b>	<b>%100</b>

## **6.1. Planned Expenditure on the Agricultural Sector During 2008 – 2011**

Table 2 shows budget allocations for 2008, estimates of expenditures for subsequent years, seasonal subsidies for the agricultural sector, finance from the banking sector, the balance of unallocated appropriations, finance by donors and self finance. Although the figures are self-explanatory, the following observations provide a useful summary of the table:

- The total cost of the programme in 2008 amounts to 2905.15 million SP, increasing gradually until it reaches 3422.74 million SP in 2011.
- The total budgetary allocation including donor contribution amounts to 2365 million SP in 2008 and will increase gradually to a maximum of 2694 million SP in 2011.
- Government financial contribution is estimated at 1279.4 million SP in 2008 and will decrease steadily to reach 764 million SP in 2011.
- Donor contribution will increase gradually from 286 million SP in 2008 to 380 million SP in 2011. This includes grants and borrowing from regional and international financial institutions to finance projects.
- Subsidies to the crop and livestock sectors will decline with the anticipated improvement in infrastructure and supporting services from 208 million SP in 2008 to 120 million SP in 2011.
- Bank finance will increase by 25% annually from 800 million SP to 1560 million SP in the final year.
- Finance from farmers' own resources is estimated at 540 million SP in 2008, and will increase gradually to a maximum of 719 million SP in 2011. However, self-financing could exceed this target due to the expected increases in productivity and improvement of the capacities of the producers to finance their agricultural operations.
- Government contributions will decrease gradually from 44% in 2008 to 22.3% in the last year, while bank financing will increase from 27.5% to 45.6%, and donor financing will increase from 9.9% to 11.1%, and self-financing will increase from 18.6% to 21.0% during the same period. The decline in government contribution and the simultaneous increase in bank financing will take place because the expenditure on irrigation infrastructure will be completed. What will remain to be financed by the government are the maintenance costs, repayment of cost of finance, capital installments and cost of support services. The establishment of the risk management fund and the spread of agricultural insurance on a wide scale will provide the producer with enough guarantee to access credit from commercial banks.

**Table 2 Approved Expenditures for 2008 and estimates for 2009 – 2011 (in million SP):**

<b>Programme</b>	<b>Approved 2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>Total</b>
Programmes & Projects	1357.1	1343	1105	1014	<b>4819.1</b>
Agricultural Subsidies	208.0	180	160	120	668.0
Bank Finance	800.0	1000	1250	1560	4610.0
<b>Total Cost</b>	2365.1	2523	2515	2694	10097.1
<b>Details of Finance</b>	2905.1	3117.0	3168.4	3422.7	12613.2
Government	1279.4	1208.7	919.2	763.7	4171.0
Commercial Banks	800.0	1000	1250	1560	4610.0
Foreign Contribution	285.7	314.3	345.8	380.3	1326.1
Self Finance	540.0	594	653.4	718.7	2506.1
<b>% Contribution by Source</b>					
Government %	44.0	38.7	29.0	22.3	–
Banks %	27.5	32.1	39.5	45.6	–
Foreign %	9.9	10.1	10.9	11.1	–
Self Finance %	18.6	19.1	20.6	21.0	–

Table 3 shows the components and objectives of the projects included in the programme which include water harvesting and irrigation projects, feeder roads, ferries, capacity building, support services and capacity building in information and communication technologies. It also shows food security, poverty reduction and rural development projects, marketing infrastructure and export promotion projects, and projects for development and modernization of agricultural and livestock systems, protection and development of natural resources, and operational expenditure for running the commodity development councils.

**Table 3 Objectives and Components of the Agricultural Revival Programme**

<b>Area of Intervention/ Project</b>	<b>Objectives</b>	<b>Components</b>	<b>Cost in million SP</b>
Water Harvesting	<ul style="list-style-type: none"> <li>⇒ Using rainfall and annual streams for supplementary irrigation.</li> <li>⇒ Provision of drinking water for humans and animals.</li> <li>⇒ Restoration of plant and tree cover.</li> </ul>	<ul style="list-style-type: none"> <li>⇒ Construction of 1000 dams at the rate of 250 per year and rehabilitation of 150 dams.</li> <li>⇒ Construction of 5 thousand hafirs and rehabilitation of 1000 hafirs.</li> <li>⇒ Installation of 750 filters.</li> </ul>	486
Irrigation Projects	<ul style="list-style-type: none"> <li>⇒ Increasing irrigated areas and intensification</li> <li>⇒ Increasing hydroelectric power</li> </ul>	<ul style="list-style-type: none"> <li>⇒ Heightening of Rosares Dam and construction of Setit Dam</li> <li>⇒ Establishment of new irrigation projects, rehabilitation and electrification of existing projects</li> </ul>	1484.6
Feeder roads, ferries and livestock routes	<ul style="list-style-type: none"> <li>⇒ Linking production areas with markets; connecting west and east banks in Nile states to facilitate marketing products and inputs</li> </ul>	<ul style="list-style-type: none"> <li>⇒ Paving 2000 km of all weather roads</li> </ul>	241.5
Capacity building	<ul style="list-style-type: none"> <li>⇒ Building the capacity of the producers and their organizations to assume leadership role in agricultural production</li> </ul>	<ul style="list-style-type: none"> <li>⇒ Training of producers</li> </ul>	14.0
Supporting services	<ul style="list-style-type: none"> <li>⇒ Improving production and product quality for competition in domestic and international markets</li> </ul>	<ul style="list-style-type: none"> <li>⇒ Technology transfer centers, crop protection and animal health services; agric. and livestock extension services; agric. and livestock research, information and communication technologies</li> </ul>	411.3
Capacity building of Information Institutions and Informatics	<ul style="list-style-type: none"> <li>⇒ Availability of information to support decision making</li> </ul>	<ul style="list-style-type: none"> <li>⇒ Complete Agricultural census</li> <li>⇒ Agricultural and livestock annual surveys</li> </ul>	49

<b>Area of Intervention/ Project</b>	<b>Objectives</b>	<b>Components</b>	<b>Cost in million SP</b>
Food Security, poverty Reduction and rural Development	⇒ Improve standards of living and social welfare through reducing poverty, sustainable production and risk management	⇒ Programmes and projects in rural development areas	1417.2
Marketing and Export Infrastructure	⇒ Reduction of the cost of production and application of the quality standards to enhance competitiveness of production in local and international markets	⇒ Storage facilities, rehabilitation of markets, ginneries, abattoirs	330.2
Development and Modernization of Agricultural Systems	⇒ Increase productive efficiency of existing projects ⇒ Introduction of new improved technology	⇒ Irrigated and rain-fed intensive pilot farms (crops and livestock)	30.5
Development and Protection of Natural Resources	⇒ Rational use and sustainable development of natural resources	⇒ Preparation of land use maps, broadcasting of pasture seeds, rehabilitation of the gum arabic belt, reafforestation and control of desertification.. etc	348.8
Commodity Development Councils	⇒ Integration of the commodity production, marketing, export and consumption chain to improve the competitiveness of the Sudanese commodities	⇒ Establishment of development councils for commodities and commodity groups	16.0
<b>Total</b>			<b>4819.1</b>

## **6.2. Approved Programmes and Projects for 2008:**

The following part of the document presents the action plan for the programmes and projects included in the 2008 government budget concerning agricultural sector ministries and corporations at the federal and state levels. In addition, the figures also show the financial allocations specified for the programmes and projects from the unallocated capital transfers to the northern states within the framework of the Agricultural Revival Programme.



The concerned authorities are obliged to prepare the programmes and projects for the years 2009 – 2011 in accordance with the financial allocation proposed for the revival programmes, and within the available resources. This will ensure that the annual action plans are operational and implementable.

## **6.2.1. Infrastructure Programmes**

### **6.2.1.1. Water & Irrigation Projects**

These projects contribute to socio-economic development because it provide the basic services needed for the settlement of rural communities, including water harvesting from rainfall and dams for drinking and supplementary irrigation. Irrigation and water harvesting projects include heightening of Roseries Dam, rehabilitation of Khor Abu Habil, development of Idd El Fersan, Rehaid El Birdi, Umbayada and Abu Hamra agricultural projects. The total cost amounts to 148 million SP as can be seen in table 4.

**Table 4 : Water Harvesting Projects**

<b>Name of Project</b>	<b>Location</b>	<b>Executing Body</b>	<b>Approved 2008</b>	<b>Un-allocated</b>	<b>Total Cost 2008</b>
Dams and Reservoirs	States	Private sector through Bank	30	90	120
Rehabilitation of Abu Habil	North Kordofan		8	0	8
Idd El Fersan & Rehaid El Burdi	South Darfur		10	0	10
Umbayada	North Darfur		5	0	5
Abu Hamra	North Darfur		5	0	5
<b>Total</b>			<b>58</b>	<b>90</b>	<b>148</b>

## B. Irrigation Projects

Table 5 presents 19 irrigation projects by location, executing agency and the allocated funds

**Table 5: Irrigation Projects**

Name of Project	Location	Executing Agency	Approved 2008	Un-allocated	Total 2008
Lower Gates of Rosares Dam	National	MIWR	7.5	0	7.5
Underground Reservoir of Nubian Aquifer	National	MIWR	0.5	0	0.5
Rehabilitation of Rahad irrig. Infra.	National	MIWR	19.0	0	19.0
Rehabilitation of Supplementary Pumps in Khashm El Girba	National	MIWR	1.0	0	1.0
Using X-ray to develop water resources	National	MIWR	0.1	0	0.1
Rehabilitation of Rosares Upper Gates	National	MIWR	1.0	0	1.0
Heightening of Rosares Dam	National	MIWR	102	0	102
Rehabilitation of Gezira Infrastructure	National	MIWR	35.5	0	35.5
Rehabilitation of Esuki Corporation	National	MIWR	23.63	0	23.63
Rehabilitation of Irrigation Infra. In Irrigated Projects	National	MIWR	24.15	0	24.15
The Tenth Inspectorate in Rahad	National	MIWR	2.0	0	2.0
Rehabilitation of Irrigation Pumps	Nile, White Nile, Sennar & Northern states	MIWR	5	0	5
Completion of New Halfa Rehabilitation	National	MIWR	1.0	0	1.0
Rehabilitation/Regrouping of White Nile Schemes	White Nile State	MIWR	20	0	20
Blue Nile Pump Schemes Projects	Blue Nile State	MIWR	10	0	10

Tokar Delta Rehabilitation Project	Red Sea State	MIWR	15	0	15
East Soba and Eseleit Project	Khartoum State	MIWR	3	0	3
West Soba and Gamuya Projects	Khartoum State	MIWR	3	0	3
Rehabilitation of Pumps and Irrigation Infra. in Hilalia	Gezira State	MIWR	10	0	10
Eastern Nile Basin Projects	National	MIWR	0.70	0	0.70
<b>Total</b>			<b>284.08</b>	<b>0</b>	<b>284.08</b>

#### 6.2.1.2. Feeder roads, ferries and bridge:

Feeder roads and bridges across rivers play an important role in linking production areas with inputs and product markets. Traditional and semi-mechanized rainfed sector states lack weather rural roads, white Nile states, lack bridges to link their west and east banks. A total of 101.5 million SP has been approved in 2008 budget: 98 million SP for rural roads and 3.5 million SP for bridges (table 6).

**Table 6: Cost of Rural Roads, Ferries and Barrages (million SP)**

The Project	Component	Executing Agency	Approved 2008	Non allocated	Total 2008
Rural roads	Earth roads usable year-round identified by the states	The states	0	98.0	98.0
Ferries and Bridges	Identified in the Green Mobilization Plan	Nile State	0	3.5	3.5
<b>Total</b>			0	101.5	101.5

#### 6.2.1.3. Livestock routes and pastoralist camps:

Pastoralists migrate seasonally along recognized routes between rainy season grazing areas in the north (poor savannah and semi-desert sandy areas) and summer season areas in the south (rich savannah clay lands). This important migration necessitates opening livestock routes and temporary camping areas and the provision of services to pastoralists, including drinking water for pastoralists and their animals, education, health care, sanitary services and animal breeding for improving the herds. These routes and camps are vital for reducing conflicts over resources between farmers and pastoralists and will help encourage settlement of the nomads in the future.

**Table 7: Livestock Routes and Camping Areas:**

The Project	Component	Executing Agency	Approved 2008	Non allocated	Total 2008
Legalization and development of pastoralists routes	Opening routes, wells, dams, hafirs, services	The Presidency Ministry of Federal Government, the states, relevant ministries	Using budgets for committees and development budgets in the states		

**6.2.2. Building the Capacities of Producers and their Institutions:**

The 2008 government budget includes 4 million SP allocated for a programme designed to introduce qualitative changes in farmers and pastoralists with the objective of preparing them for the leadership of the agricultural work. This programme consists of training activities and the preparation of the necessary laws and by-laws needed to support the desired change (see table 8).

**Table 8: Programmes for the Qualitative Change of the Producers:**

The Project	Component	Executing body (ies)	Cost in million SP		
			Approved	Un-allocated	Total
Qualitative change of farmers, pastoralists and agro-processors	⇒ Drafting a law to replace farmers and pastoralist Act, 1992 ⇒ Preparation of training programmes for capacity building ⇒ Implementation of approved budgets	Farmers' and pastoralists' unions, other relevant bodies. MAF, MAR, MOIW, pastorals, MFNE	0.0	1.0	1.0
Training and capacity building in federal and state ministries in project preparation, implementation, monitoring and evaluation, choice of crop mix, information and communication technologies, policy analysis and marketing	⇒ Availability of finance ⇒ Preparation of training modules ⇒ Implementation of the programme	Agricultural sector ministries, Ministry of National Industry, state ministries	0.0	1.0	1.0

The Project	Component	Executing body (ies)	Cost in million SP		
			Approved	Un-allocated	Total
Training of agricultural machinery users on mechanization of different operations.	⇒ Training modules ⇒ Availability of finance	MAF, state ministries of agriculture	0.0	1.0	1.0
Encourage and support formation of qualitative producer organizations dealing with production and marketing	⇒ Awareness raising and capacity building ⇒ Implementation of pilot programmes	MAF, MAR, state ministries, private sector	0.0	0.5	0.5
Ranking of farmers on the basis of productivity and targeting farmers with poor yield records for change to successful producers	⇒ Articulation of a package of incentives	Management of pastoral sector ministries	0.0	0.4	0.4
Capacity building of agricultural managers Programme for development of innovative agricultural management implemented by universities.	⇒ Training and capacity building in agricultural management	A committee from MAF, MAR, Ministry of Labour for follow up	0.0	0.1	0.1
<b>Total</b>			0.0	4.0	4.0

### 6.2.3. Support Services Projects:

The total allocations approved for agricultural support services in 2008 budget amount to 101 million SP. These projects include the implementation of the "Village as a centre for dissemination of knowledge and distribution of agricultural services" Programme which targets 500 villages to begin with; continue the establishment of technology transfer centres; rehabilitation of the horticultural sub-sector, building of data and information basis, support of the infrastructure for crop protection, agricultural, livestock and agro-industrial research .. etc as can be seen in table 9.

**Table 9: Support Services Projects: (million SP)**

<b>Project/Programme</b>	<b>Location</b>	<b>Executing body (ies)</b>	<b>Approved</b>	<b>Un-allocated</b>	<b>Total</b>
The village as a centre for services and agricultural knowledge (500 villages in 2008)	The states	The states, relevant federal ministries	0	10.0	10.0
Technology transfer centers (crops)	Rain-fed sector states	MAF, the states	3.0	0	3.0
Technology transfer centers (livestock)	Rain-fed sector states	MAF, the states	0	3	3.0
Rehabilitation of the horticultural sub-sector	The states	MAR, the states	2.5	0	2.5
Agricultural planning, economics and surveys	National	MAF, the states	1.0	0	1.0
Rehabilitation of the crop production infrastructure	National	MAF	3.5	0	3.5
Agricultural Investment Development Centre	National	MAF	0.64	0	0.64
Provision of vaccines	National	MAR	2.5	0	2.5
Development of the National Fishery Centre	National	MAR	1.0	0	1.0
Control of epidemics	National	MAR	10.1	0	10.1
Control of poaching	National	MAR	1.0	0	1.0
Rehabilitation of quality control labs.	National	MAR	1.5	0	1.5
Veterinary clinics	National	MAR	2.0	0	2.0
National project for control of epidemic diseases and animal health	National	MAR, the states	Using approved projects' budget in 2008		Starting 2009
Animal production training centres and artificial insemination	National	MAR	1.0	0	1.0
Rehabilitation of drug control lab.	National	MAR	1.1	0	1.1
Rehabilitation of fish pilot farms	National	MAR	1.0	0	1.0

<b>Project/Programme</b>	<b>Location</b>	<b>Executing body (ies)</b>	<b>Approved</b>	<b>Un-allocated</b>	<b>Total</b>
Improvement of livestock breeds and control of genetic components and characteristics	National	MAR	2.6	0	2.6
Improvement of leather production	National	MAR	0.7	0	0.7
National project for improvement of animal health	National	MAR, the states	10	0	10
Vaccination of the national herd	National	MAR	20	0	20
Research priority setting studies based on needs of the revival programme	National	M\ST	0	2.0	2.0
Rehabilitation of agricultural research corporation centers	National	MST	6.0	0.5	6.5
Rehabilitation of livestock research corporation centers	National	MST	5.5	0.5	6.0
Central lab.	National	MST	2.7	0	2.7
Introduction of new production technologies	National	MAF, MAR, MST	0	1.0	1.0
Development of the industrial research infrastructure	National	MST	0	5.0	5.0
<b>Total</b>			<b>79.34</b>	<b>22</b>	<b>101.34</b>

#### **6.2.4. Information and Informatics:**

Table 10 presents programmes and projects on information and informatics which are planned for implementation in 2008 budget. Most important of these programmes is the comprehensive agricultural census (crop and livestock sectors) which takes three years to complete, in addition to building capacities in data and information bases and preparation of studies and research.

**Table 10: Programmes and Projects on Information and Informatics**

<b>Project/Program me</b>	<b>Location</b>	<b>Executing body (ies)</b>	<b>Approved</b>	<b>Un-allocated</b>	<b>Total</b>
Agricultural census	All states	MAF, MAR, the states, districts nations bureau of statistic	0	10.0	10.0
Strategic information and studies base	National including all northern states	MFNE, Council of Ministers, MAR, MAF	3.0	0	3.0
Planning and field economic surveys	All states	MAF	1.0	0	1.0
Research on Blue Nile State	Blue Nile State	Blue Nile State	2.0	0	2.0
Household expenditure, consumption and livelihood studies	All states	Central bureau of statistics, MFNE, MAR, Ministry of Social Affairs	0	0	To be referred to the studies and technical assistance unit, MFNE
<b>Total</b>			<b>6.0</b>	<b>10.0</b>	<b>16.0</b>

**6.2.5. Food Security and Poverty Reduction Projects:**

Table 11 shows programmes and projects on food security, poverty reduction and rural development. The cost of these projects approved in 2008 amounts to 467 million SP. These projects cover all parts of the country. Implementation is expected to bring about improvements in the living conditions of the people and their stay in the productive sector, through increasing productivity and reduction of the costs of production.



**Table 11: Programmes and Projects on Food Security, Poverty Reduction and Rural Development (million SP):**

<b>Project/Programme</b>	<b>Location</b>	<b>Executing body (ies)</b>	<b>Approved</b>	<b>Un-allocated</b>	<b>Total</b>
National Wheat Programme	Northern, Nile and White Nile states	MAF	259.38	0	259.38
National Rice Project	White Nile State	MAF	1.0	0	1.0
Special Programme for Food Security	Khartoum, North Kordofan and White Nile	MAF	3.5	0	3.5
Integrated Information System for Supporting Decision Making in Food Security	Federal and State Government	MAF, the states and other concerned bodies	11.5	0	11.5
Risk management and Agricultural Insurance	National	National Fund for Risk Management	5.0	0	5.0
Regeneration of Systems of Livelihood in Gash	Kassala State	Kassala State	13.7	0	13.7
Blue Nile Development Project	Blue Nile State	Blue Nile State	3.0	0	3.0
Development of Irrigated Agriculture (Rahad, Taiba ElKemir, ElHurga)	Gezira, Gedarif		10.0	0	10
Provision of improved seeds to farmers free of charge	Rain-fed sector states	MAF, concerned states	25	0	25
Drought amelioration and food security	North Kordofan	North Kordofan State	12	0	12
Drought amelioration and food security	North Darfur	North Darfur State	4.5	0	4.5
Drought amelioration and food security	Greater Darfur	Greater Darfur	40	0	40

<b>Project/Programme</b>	<b>Location</b>	<b>Executing body (ies)</b>	<b>Approved</b>	<b>Un-allocated</b>	<b>Total</b>
North Kordofan Rural Development	North Kordofan	North Kordofan State	2.2	0	2.2
South Kordofan Rural Development	South Kordofan	South Kordofan State	7.1	0	7.1
Khor klabob	Red Sea State	Red Sea State	0.15	0	0.15
Jebal Marra Rural Development Project	West and South Darfur	West and South Darfur states	8	0	8
Rural Development in Gedarif State	Gedarif State	Gedarif State	8	0	8
Um Agag Agricultural Project	South Darfur	South Darfur	5	0	5
Food Security in Red Sea State	Red Sea State	Red Sea State	18.2	0	18.2
Rural Development in Nuba Lake	Northern State	Northern State	6.0	0	6
Rehabilitation of Basic Infrastructure	Southern Sudan	Government of Southern Sudan	10	0	10
Improvement of Farmers' Income	Rain-fed Sector states	Rain-fed Sector states	14	0	14
<b>Totals</b>			<b>467.23</b>	<b>0</b>	<b>467.23</b>

**6.2.6. Agricultural Marketing and Export Promotion Infrastructure:** acknowledging the importance of agricultural marketing and export promotion infrastructure in improving incomes of producers through providing easy access to markets, 90 million SP have been allocated in 2008 for rehabilitation and development of marketing infrastructure for crops and livestock (table 12).

**Table 12: Programmes and Projects for Agricultural Marketing and Export Promotion (million SP):**

Project/Programme	Location	Executing body (ies)	Approved	Un-allocated	Total
Rehabilitation of ginneries	National	Parastatals	15	0	15
Rabak Silo	National	National Strategic Reserve Authority	28	0	28
Establishment and Rehabilitation of Quarantines and Slaughter Houses	National	MAR	13	0	13.0
Improvement of Production And Marketing of Livestock in Rain-fed Areas	National, with emphasis on Sennar, Blue Nile, White Nile and North Kordofan states	MAR in collaboration with states	5.2	0	5.2
Survey and control of diseases hampering exports	National	MAR	7.0	0	7.0
Rehabilitation of Inspection and Vaccination Centers	National	MAR, states	8	0	8
Establishment of wholesale fruits and vegetables markets with all related services	States	MAR, states	0	0.5	0.5
Establishment of wholesale livestock markets	States	MAR, states	0	0.5	0.5
Strategic Belt for Livestock Exports	National	MAR, states	0	13	13
<b>Total</b>			<b>76.2</b>	<b>14</b>	<b>90.2</b>

#### **6.2.7. Development and Modernization of Agricultural Systems:**

Development and modernization programmes and projects for agricultural systems consist of programmes for settlement of the nomads, introduction of new agricultural enterprises and technologies in Gezira Scheme, preparation of new modalities of irrigated and rain-fed ranches, adoption of zero tillage technology and aquaculture.

The total budgetary allocations for 2008 amounts to 6.5 million SP (table 13).

The main objective behind water harvesting and irrigated and rain-fed ranches is to create an environment conducive to the settlement of pastoralists and provide the necessary services beside water, range and pastures. Studies would be undertaken to determine the livestock carrying capacity at each site with a view to ensuring the sustainable management of the resources.

**Table 13: Programmes and Projects for the Development and Modernization of Agricultural and Livestock Systems:**

<b>Project/Programme</b>	<b>Components</b>	<b>Executing body (ies)</b>	<b>Approved</b>	<b>Un-allocated</b>	<b>Total</b>
Improvement and modernization of agricultural systems in Gezira Scheme	Pilot farms in three locations in the Gezira Scheme	Gezira Scheme	0	* 3.5	3.5
Irrigated Pilot Pasture Farm	Permanent irrigation, production of fodder, Genetic improvement of livestock	MAR, private sector	0	0.5 Evaluation, Studies	0.5
Rain-fed Pilot Pasture Farm	Supplementary irrigation, fodder production	MAR, states	0	0.5 Evaluation, Studies	0.5
Zero Tillage Technology in mechanized rainfed sector	Planters, Harvesters, inputs, others	Private sector, relevant ministries, banks	0	0	0
Agro-forestry Piloting	-	National Forestry Corporation	1.0	0	1.0
Fish culture and water living organisms	Infrastructure, finance	Private sector in collaboration with MAR	1.0	0	1.0
<b>Total</b>			<b>2.0</b>	<b>4.5</b>	<b>6.5</b>

#### **6.2.8. Development and Protection of Natural Resources:**

Important programmes for the development and protection of natural resources have been included in 2008 budget. These projects include the preparation of land use maps, the desert control programme, pasture seeds broadcasting, the reafforestation programme, and natural resources management. The total cost of these programmes amount to 134 million SP as shown in table 14.

**Table 14: Programmes and Projects on Protection and Development of Natural Resources:**

<b>Project/Programme</b>	<b>Location</b>	<b>Executing body (ies)</b>	<b>Approved</b>	<b>Un-allocated</b>	<b>Total</b>
Preparation of land use maps	National	MAF, the states	1.0	0	1.0
Desertification control programme	National	MAF, the states	0	5.0	5.0
National seeds broadcasting	Rain-fed sector states	MAF, the states	1.0	0	1.0
Natural resources management in West Sudan	Greater Kordofan, Greater Darfur	Greater Kordofan, Greater Darfur states	15.8	0	15.8
Butana integrated rural development	Gedarif, Kassala, Nile, Gezira, Khartoum states	MAF, MAR, relevant states	50	0	50
Rehabilitation of the Gum Arabic Belt	Gum Arabic producing states	MAF, the states	40	0	40
The Green March Project			5	0	5
National Forests Corporation projects	National	National Forests Corporation	1.0	0	1.0
Afforestation of 5% of the area of the irrigated projects	National	National Forests Corporation, parastatals, states	0	4.0	4.0
Afforestation of 10% of the area of the rain-fed projects	National	National Forests Corporation, , states	0	4	4.0
National Afforestation Programme	National	National Forests Corporation, , states	0	7.0	7.0
Green State Project	National	MAF, states			
Awareness campaign on importance of development of natural resources	National, states	National Forests Corporation, relevant authorities	0	0	0
National plan for environmental management	National	Ministry of Environment, international organizations			
<b>Total</b>			<b>113.8</b>	<b>20</b>	<b>133.8</b>

## 7. Key Agricultural Revival Projects

### 7.1. Strategic Partnerships:

These projects intended to keep up with international developments in production, processing and trade. The implementation of these projects requires the identification of studies to be undertaken through international partnerships between the local and international private sector based on:

- ⇒ Specification of local components and comparative advantage of local production to be presented to selective potential partners.
- ⇒ identify the needs for and the specifications of the commodities required by the selected partners.

**Table 15: Strategic Partnerships projects:**

Field of Partnership	Partner preference/ Comparative Advantage	Location	Advantages	Objectives	Outcome
Large scale production	Wheat production	Northern, Nile, Gezira states	Suitable soils, adequate water, political will for self-sufficiency, favourable climate, technology available	To produce three million tons	⇒ Self-sufficiency for exports ⇒ Surplus for exporters ⇒ Improve producers' incomes.
Production, marketing and processing	Cotton production	Gezira and irrigated projects, Nuba Mountains, semi-mechanized rainfed lands	Quantities and quality as required by the partner	Lint for partner's market. Oil for the local market.	⇒ Increase in production. ⇒ Increase farmers' income by 30%.
Production and Marketing	Rice Production	White Nile, Gezira, Southern Sudan (Aweil)	Quantities and quality as required by the partner	Local market. Export market	⇒ Improve farmers' incomes. ⇒ Self-sufficiency ⇒ Surplus for export
Production, Marketing and Processing	Sugar and sugar by-products	Existing White Nile projects and Upper Nile projects	350 thousand feddans available	International markets. Local market. Sugar-based feeds	⇒ Revitalization of existing projects. ⇒ Increase farmers' incomes

				Bio-energy	
<b>Field of Partnership</b>	<b>Partner preference/ Comparative Advantage</b>	<b>Location</b>	<b>Advantages</b>	<b>Objectives</b>	<b>Outcome</b>
Production, processing and Marketing	Green and dry fodder, fattening of livestock and sheep, vegetables & concentrates	Halfa Agricultural Corporation	300-400 thousand feddans	Local market. Saudi Arabia and the Gulf states and other international markets.	⇒ Increase farmers' incomes and export earnings
Production, processing and Marketing	Dates	Expansion in area under dates in the northern eastern and central regions	Conducive ecological conditions from the north to altitude 13 (Sennar). Accumulated experience. Markets.	Planting 4 million high quality introduced date varieties. Raise awareness about dates as a source of food security in Red Sea, Kordofan and Darfur.	⇒ Satisfy local market needs for high quality dates. ⇒ Target international markets.
Developing production and post-harvest handling and Marketing	Export of banana	Sennar, kassala, Blue Nile states	Conducive climate. High productivity and quality	Proximity to Arab Region	⇒ Increasing producers' incomes and export earnings
Production, Marketing and processing	Sheep	Rahad and Gezira Schemes, North Kordofan	30 thousand feddans irrigated farms. 100 thousand feddans rain-fed ranches	Saudi Arabia, Gulf states, Egypt, East Asian countries	⇒ Increasing producers' incomes and export earnings
Production, Marketing and processing	Satisfaction of export markets according to standards	North Gedarif, North Kordofan states	Rain-fed ranches in 100 thousand feddans	Saudi Arabia, Gulf states, Egypt, East Asian countries	⇒ Increasing export earnings
Production, Marketing and processing	Availability of Fish	Nubian and Merwe Dam Lakes	Capacity of one thousand tons annually	Local markets	⇒ Increasing incomes of fisher folks. ⇒ Self-sufficiency
Production, Marketing and processing	Fish culture farms in 750 feddans	Red Sea State	30000 tons lobster 40000 tons tuna	International markets	US\$ 400 million export proceeds

			65000 tons fish feeds		
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## 7.2. Other Key Project:

The following projects present investment opportunities where the country enjoys a comparative advantage in the production of certain goods or services which have fast growing international markets:

- ✦ Privatization of veterinary services: this project aims at the privatization of diagnostic and treatment veterinary services, control of epidemic diseases, provision of simple equipment, transfer of technology, veterinary drugs and veterinary extension. The ultimate objective is to increase the productive efficiency and improve marketing performance. The preparations for the project will start during 2008 through a project entitled "support of livestock production and experimental marketing" in the traditional rain-fed area. The project will start as a pilot stage in North Kordofan State and, after evaluation, will be scaled up to include Blue Nile and Sinnar states. In the medium and long terms the project will cover the other states.
- ✦ Projects meant to develop animal production systems as irrigated and rain-fed farms.
- ✦ Projects for the development of the poultry industry.
- ✦ Fish culture projects in fresh and marine waters.
- ✦ Projects on cereals (wheat, sorghum, maize, rice, for food security and biofuel production.
- ✦ Production of biofuel (ethanol) from sorghum, starting with sweet sorghum.
- ✦ Production and processing of milk and its derivatives.
- ✦ Production of a variety of fruits and vegetables in Jabel Marra, Western Darfur.
- ✦ Meat production and processing.
- ✦ Organic food production and processing for export.
- ✦ Accreditation, registration and promotion of exports of commodities produced free of chemicals, such as sesame, groundnuts, karkade and traditional water melon.
- ✦ Sugar beets for production of sugar for local and international markets and for biofuel production.
- ✦ Large scale farms using zero tillage technology in the rain-fed sector.
- ✦ Local production of agricultural inputs including seeds, fertilizer, insecticides, vaccines and veterinary drugs, agricultural and livestock machinery and equipment.



- Skins and hides processing and leather industries.
- Promotion of the exports of fruits and vegetables such as bananas, mangoes and grape fruits.
- Agricultural services companies for provision of agricultural inputs and new appropriate technologies.
- Cut flowers for export.
- Green pasture development.

The scale of production and the markets targeted, the location of the projects and the factors of success are shown in table 16.

**Table 16: Other Key Projects:**

Area	Targeted scale of production	Production areas	Advantages	Targeted markets
Rain-fed ranches for sheep	1.2 million heads	West Kordofan (100 thousand fed. In Gubeish). Gedarif (600 thousand fed.)	Good breeds Plenty of natural pastures	Saud Arabia and other Arab states. Local market
Poultry industry (broilers, egg laying, mothers)	40 million broilers. 1 billion eggs	Khartoum, Gezira, White Nile, Red Sea	Availability of inputs ie feeds, electricity	Local market Neighbouring countries
Production of cereals and oil seeds	10 billion tons: 6 billion oil seeds, 4 billion cereals	Gedarif, Blue Nile, Sennar, White Nile, Upper Nile, Southern Jordofan	Extensive good lands. Favourable climatic conditions	International market Local market
Fish culture (1200 farms in 6000 fed.)	15000 tons	Fresh water in Khartoum and White Nile states	Suitable fish species	Local market Export
Production of ethanol from sorghum		Rainfed areas in all relevant states	Successful sorghum production in all states. Potential for increase of area and yields. Learning from international experience.	International market Local market

<b>Area</b>	<b>Targeted scale of production</b>	<b>Production areas</b>	<b>Advantages</b>	<b>Targeted markets</b>
Dairy Industry	10000 tons per day	Khartoum, Gezira, White Nile	Availability of feeds, markets and infrastructure	Local market
Organic production of fruits and vegetables	10000 ton vegetables 10000 ton fruits	Khartoum, Gezira, Kassala, Sennar, Nile, Northern states	Availability of water and land. Infrastructure	European markets
Sugar beets	50000 ton	Gezira, Nile states	Availability of water and land. Infrastructure	European markets
Zero Tillage technology	1 million feddans	Gedarif, Blue Nile	Availability of land and water. Successful experience.	Export Local market
Hides and skins industry	1 million pieces per month	Khartoum and South Darfur states	Raw hides and skins	Export Local market

The implementation of these projects requires the following:

- ✧ Preparation of technical and economic feasibility studies.
- ✧ Guarantee of financing and profit incentives.
- ✧ Allocation of land free of any restrictions or objections.
- ✧ Cooperation between the government and the private sector to seek foreign partners.

## 8. Agricultural Commodities Development Council

### 8.1. Justifications for the establishment of the council:

Many countries have used agricultural commodities councils to promote their economic and social development. This approach is particularly appropriate for commodity-dependent countries like the Sudan because it facilitates the integration of all the activities in the commodity chain by coordinating between all the stakeholders involved in production, marketing, export and consumption of that commodity. The focus will be made on certain commodities chosen on the basis of the comparative advantage enjoyed by the Sudan in the production of these commodities, the magnitude of the local and international demand and the competitiveness in local and international markets. The commodities chosen are characterized by the ability to induce regional and national economic and social development.

The programmes for the development of commodities consists of establishing a development council for each commodity or group of related commodities, implementing a package of incentives for the producers, development of research programmes and improvement of marketing.

The advantages of this approach are the following:

- The development of some commodities induces socio-economic development in wide geographical areas.
- Efficient use of financial and technological resources
- A forum for all the stakeholders in the commodity chain promotes cooperation, integration and help in reaching a common understanding of strategies and requirements for development.
- This approach ensures sustainable of production of the commodity because it strengthens all the components of the commodity chain: research, production, marketing, processing, export.
- It has a direct effect on poverty reduction and therefore it can easily get government and donor finance.
- It is a quick and easily monitorable way of achieving the objective of development.
- The commodity focus helps in achieving quality standards and training of producers.

The following commodities will be focused on:

- **Sorghum:** it is widely spread across the country and in all farming systems, especially in the central and western parts of the country. It plays a crucial role in food security.

- **Millet:** grown mainly in Kordofan and Darfur states where it constitutes the main food crop.
- **Gum Arabic and forestry products:** while gum Arabic prevails in different areas in the central and western parts of the country, it is concentrated in the so-called Gum Arabic Belt where five million people depend on it as a means of livelihood.
- **Wheat:** produced mainly in the Northern State, Nile State and the Gezira Scheme.
- **Cotton and other fiber crops:** cotton is produced mainly in the irrigated schemes with good potentials for expansion in rainfed areas in the Nuba Mountains, Gedarif and the Blue Nile.
- **Oilseeds:** the most important oilseeds are sesame, groundnuts and sunflower. It is produced in central and western Sudan.
- **Watermelon and karkade:** produced in Kordofan and Darfur.
- **Fruits and vegetables:** vegetables (tomatoes, onion, potatoes) and tropical fruits (pineapple, papaya, coffee, tea, cassava .. etc) and fruits including mangoes, bananas, date palms, citrus. Fruits and vegetables grow in different parts of the country and are labour-intensive crops.
- Pulses and spices (broad beans, lentils, lubia, garlic, etc).
- Green fodders.
- Medicinal and aromatic plants and cut flowers.
- Sugar crops (sugar cane and sugar belt).
- Livestock (cattle, sheep, goats, camels): livestock products are high value commodities produced by large groups of producers in all parts of the country, especially the western and eastern parts.
- Milk.
- Poultry
- Fish
- Wildlife
- Other promising commodities (soya beans, kinola).

## 8.2. Constitution of the Commodity Councils:

A commodity council will be established for each commodity or a group of related commodities consisting of:

- A chairman with long and rich experience in the issues of the commodity in question.
- Members representing the different stages of the commodity chain: researchers, producers, processors, service providers.
- A rapporteur and secretariat for each council.

The chairman and members of the council lend their services on a part-time basis. The rapporteurs and secretariat are full-time employees. The terms of reference and by-laws governing these councils will be issued in due course after consultation with the chairmen of the councils.

In the constitutions of the councils, special consideration will be given to food security crops, export crops and the geographical dimension (coverage).

### **8.3. Terms of Reference of the Councils:**

The TOR of the councils may be summarized as follows:

- Analysis of the status quo of each commodity or groups of related commodities with respect to production, consumption, domestic and foreign trade.
- Identification of the strengths, weaknesses, opportunities and challenges using the SWOT method.
- Exploring the opportunities for expansion and growth to meet domestic and international demand.
- Recommending a package of incentives and policy reforms to support commodity development projects which fulfill any of the following objectives:
  - Increase productive efficiency.
  - Emphasize rational use of natural resources to achieve sustainability.
  - Increase fair competition and eliminate monopoly
  - Strengthen agricultural support services including applied research, micro-credit for smallholders and enforcement of a quality control system.
  - Increase the share of the Sudan in the markets of traditional trading partners and access new markets.
  - Develop commodities which promote interdependence and unity between the different parts of the country, such as cereals, oilseeds, sugar, tea, coffee and tropical fruits.
  - Promote partnerships between national and international private sectors.

### **8.4. General Guide Lines for the Conduct of the Councils:**

Table 17 presents salient areas of advice to be considered by the councils when they draft their specific terms of reference.

**Table 17: Guide Lines for Development of Agric. Commodities Councils:**

Commodity (ies)	Guide Lines
1. Oil crops (sesame, groundnuts, sunflower, soya bean, kenola)	<ul style="list-style-type: none"> <li>⇒ Utilization of idle capacities in local oil factories</li> <li>⇒ Targeting potential markets, especially Arab Gulf states.</li> <li>⇒ Overcoming the problem of harvesting especially the shattering of sesame seeds e.g. introduce mechanical harvesting.</li> <li>⇒ Reducing Aflatoxin in groundnuts to the acceptable levels</li> <li>⇒ Regain membership of Sudan in the Groundnut Council and other relevant fora.</li> <li>⇒ Availing of high yielding and disease resistant sesame varieties and breeding non-shattering varieties.</li> <li>⇒ Expansion of sunflower production in the rainfed areas.</li> <li>⇒ Introduction of kenola, palm oil, and soya beans.</li> </ul>
2. Livestock and Red Meat	<ul style="list-style-type: none"> <li>⇒ Conservation of the genetic stock of local livestock breeds.</li> <li>⇒ Rational hybridization to increase production and productivity in meat and milk.</li> <li>⇒ Development of production through irrigated farms.</li> <li>⇒ Promoting the meat industry in the country</li> <li>⇒ Promoting partnerships with foreign private sector with a view to developing the meat and dairy industries.</li> <li>⇒ Developing the feed industry.</li> </ul>
3. Wheat	<ul style="list-style-type: none"> <li>⇒ Realizing self-sufficiency and building a reserve sufficient to meet consumption needs for two years.</li> <li>⇒ Encourage large scale investment projects.</li> <li>⇒ Expansion of rainfed wheat production in Jabel Marra</li> <li>⇒ Intensifying research to produce high yielding and high quality varieties</li> <li>⇒ Identify constraints and problems of composite flower and propose feasible solutions.</li> </ul>
4. Milk and Milk Products	<ul style="list-style-type: none"> <li>⇒ Develop production through the introduction of high yielding breeds and the preparation of a programme for the substitution of the milk imports.</li> <li>⇒ Increase the production of milk, taking into consideration milk hygiene and consumer safety.</li> <li>⇒ Establishment of milk collection centers.</li> <li>⇒ Awareness campaign emphasizing the observation of health standards in milk consumption.</li> <li>⇒ Encourage state-of-the-art integrated milk and milk products industries.</li> <li>⇒ Develop methods of collection, distribution and storage of milk making use of the SSMO proposal for developing the milk sector.</li> </ul>
5. Vegetables (onion, tomatoes, cucurbits, egg plant, leaves, etc)	<ul style="list-style-type: none"> <li>⇒ Increase productivity and stability of production on the basis of comparative advantage.</li> <li>⇒ Develop export-oriented production.</li> <li>⇒ Give due consideration to organic production.</li> <li>⇒ Enforce food safety and quality standards.</li> <li>⇒ Complete horticultural export village in Khartoum and establish other in relevant states.</li> <li>⇒ Make use of international and regional exhibitions to increase exports and access new markets based on a well articulated strategy.</li> <li>⇒ Exempt custom duties on inputs, packing materials, refrigerated transport and storage.</li> <li>⇒ Establish HACCP system to guarantee food safety.</li> <li>⇒ Diversify production by introducing new types of vegetables.</li> </ul>

Commodity (ies)	Guide Lines
6. Fruits (date palm, mangoes, banana, grape fruit, orange, lemon, guava, etc)	<ul style="list-style-type: none"> <li>⇒ Develop varieties of high yield and quality</li> <li>⇒ Use state-of-the-art method of multiplication such as tissue culture.</li> <li>⇒ Ensure availability of fruits all-year-round</li> <li>⇒ Increase productivity and maintain sustainability based on comparative advantage</li> <li>⇒ Improve means of pest and disease control for serious pests such as the green scale insect.</li> <li>⇒ Promote export-oriented production.</li> <li>⇒ Promote organic production and increase the number of crops benefiting from this type of farming</li> <li>⇒ Emphasize processing (concentrates, juices, etc) and enforce safety and quality standards.</li> </ul>
7. Cotton and other fiber crops	<ul style="list-style-type: none"> <li>⇒ Expand rainfed cotton production southward at a rate of 250 thousands annually, reaching a million feddan by 2011.</li> <li>⇒ Utilization of the areas suitable for long staple cotton in the irrigated sector.</li> <li>⇒ Liberalization of finance and marketing of cotton.</li> <li>⇒ Extensive use of mechanization.</li> <li>⇒ Apply Integrated Pest Management approach (IPM).</li> <li>⇒ Prepare a programme for optimal use of idle capacities in the cotton industry.</li> <li>⇒ Facilitate engagement in strategic partnerships in the production and marketing of cotton (particularly with China which imports US\$ 20 billion worth of cotton annually).</li> </ul>
8. Cereals (sorghum, millet, maize, rice)	<ul style="list-style-type: none"> <li>⇒ Emphasize sorghum production in the rainfed sector and reduce irrigated area under sorghum.</li> <li>⇒ Evaluate comprehensively zero or conservation tillage in mechanized rain-fed sector and expand the adoption of this approach based on this evaluation.</li> <li>⇒ Support a programme for collection of germplasm of sorghum and millet and improve and multiply improved sorghum and millet seeds.</li> <li>⇒ Develop production and productivity of maize in the rainfed sector.</li> <li>⇒ Build national and local (state) strategic grain reserve to stabilize food prices.</li> <li>⇒ Implement rice production programme in flood areas in the White Nile and the south.</li> </ul>
9. Sugar Crops (sugar cane, sugar beet)	<ul style="list-style-type: none"> <li>⇒ Increase productivity in existing schemes.</li> <li>⇒ Expand and develop the sugar industry taking into account technical, economic and social feasibility.</li> <li>⇒ Increase area under sugar cane in the White Nile State.</li> <li>⇒ Increase area in Blue Nile and the southern part of the Gezira Scheme after heightening of Rosares Dam.</li> <li>⇒ Introduce sugar beet as an industrial crop in the existing suitable schemes and new schemes in the Nile and Northern states.</li> <li>⇒ Integrate the sugar production chain, by establishing projects which utilize sugar by-products to produce bio-energy, feeds and food products.</li> </ul>
10. Gum Arabic and forestry products	<ul style="list-style-type: none"> <li>⇒ Implement liberalization of gum arabic marketing policy.</li> <li>⇒ Rehabilitate Gum Arabic Belt.</li> <li>⇒ Elimination of all taxes and levies which distort gum marketing.</li> <li>⇒ Encourage processing of gum arabic (not just treatment or crushing and granulation) and change gradually away from export of raw gum with a view to adding value.</li> </ul>

<b>Commodity (ies)</b>	<b>Guide Lines</b>
11. Watermelon seeds and karkade	⇒ Purify genetic stock of these crops. ⇒ Articulate a package of policies to develop these crops. ⇒ Implement IPM programme. ⇒ Use of karkade and watermelon oils as substitutes for traditional vegetable oils.
12. Pulses (Broad beans, lentils, lubia, etc)	⇒ Study local and international demand and competitiveness. ⇒ Promote and open new markets.
13. Feeds	⇒ Produce varieties in demand in the international markets. ⇒ Use state-of-the-art technologies to prepare the product for export.
14. Coffee, tea, tropical fruits	⇒ Rehabilitate coffee and tea farms and develop tropical fruit production and processing and marketing.
15. Medical, aromatic plants and cut flowers	⇒ Develop production and find access to foreign markets. ⇒ Develop processing.
16. Chicken	⇒ Encourage state-of-the-art in poultry industry through partnership with multi-lateral companies. ⇒ Overcome constraints of energy and feeds. ⇒ Produce mothers locally.
17. Fish and aquatic species	⇒ Introduce aquaculture in fresh and marine water. ⇒ Develop pearls and shells in the Red Sea.
18. Processing of skins and hides	⇒ Develop the leather industry. ⇒ Stop export of raw materials ⇒ Establish special industrial areas.
19. wildlife and natural habitat	⇒ Develop natural habitat in a sustainable way through coordination between concerned bodies. ⇒ Promote exports of wildlife products ⇒ Promote tourism.
Local Processing of agricultural inputs	⇒ Support and encourage local manufacturing of agricultural inputs including agricultural equipment and machinery, pumps and irrigation machines, spare parts, fertilizer (organic and chemical), pesticides, transport vehicles, packing materials, protected houses, fishing equipment, dairy equipment, forestry equipment, etc. ⇒ Survey and studies in these fields. ⇒ Propose policies which encourage national and foreign private sectors to invest in these fields.

The annual budget for the conduct of the activities of these councils is estimated at 4 million SP including the rent of the building, the allocations for the secretary general and his staff, the cost of office equipment and furniture, logistics, consultancies, studies and production of reports.



**Table 18: Annual Capital and Current Budget Estimates for the Commodity Development Councils:**

<b>Budget Item</b>	<b>Cost in million SP</b>	<b>Explanation</b>	<b>Approved in 2008 in million SP</b>
Rent of offices	0.360	At Suitable central location (for 20 Councils)	0.360
Secretary general and staff	0.650	Entitlement of Secretary General and staff	0.650
Consultancy	0.400		0.400
Equipment	0.100	Computers & accessories and other equipments	0.100
Logistics	0.750	Vehicles	0.750
Studies & reports and special assignments	1.200	Visits to countries to benefit from their experiences, and Market studies	1.200
Services	0.600	Water, electricity, communication .. etc	0.600
<b>Total</b>	<b>4.060</b>		<b>4.060</b>

## **9. Empowerment of the Role of the Private Sector in Agricultural Revival**

The achievement of the agricultural revival necessitates a rapid transformation of the agricultural sector from a traditional sector characterized by low productivity and production into a modern, dynamic, commercial sector responding effectively to local and global changes. This transformation requires specification and distribution of roles between the government and the private sector. The role of the government will be confined to the creation of a conducive environment through the provision of incentives for investment in the agricultural sector and the removal of obstacles limiting its effective participation.

This programme depends on releasing the capacities of private sector and the society as a whole for effective contribution in implementation. However, this will not happen unless the existing problems hampering the private sector are overcome. These problems are:

- ✧ Weak administrative capacities and shortage of skilled labour.
- ✧ Low contribution of the private sector in financing of the projects targeting the local and international markets.
- ✧ Lack of awareness of the private sector of the ways and requirements of modern marketing of agricultural commodities and dependence on traditional markets.
- ✧ Weak capacities of the private sector to monitor the rapid development of regional and international markets and its demand for agricultural commodities in terms of quantity, quality and timing.

In order to empower the private sector to play an effective role, the following actions must be taken:

- ✧ Remove administrative and financial restrictions obstructing intra-state and export trade.
- ✧ Ensure free, equitable and transparent competition in government procurements and contracts.
- ✧ Resolve land ownership, land use problems and conflicts over land as quickly as possible.
- ✧ Avail basic information on the lands available for investment including the privileges and the conditions of land lease
- ✧ Review existing laws and regulations which discourage private investment.

- Offer the private sector incentives to invest in research and development, either alone or in cooperation with government institutions and encourage acquiring improved technologies and adoption of innovative initiatives by deducting the cost incurred in introducing these technologies from the taxes paid by the investor.
- Strengthen relations and coordination between the private sector and the commercial offices in the Sudanese embassies with a view to providing the private sector with information and promoting agricultural investment.
- Strengthen relations with foreign entities concerned with agriculture in the Sudan (bilateral relations and regional and international organizations).
- Strengthening institutional linkages between farmers and investors to encourage partnerships.
- Privatize government-owned production enterprises and prevent government from competing with the private sector in the areas of production and agricultural finance .

The implementation of the development programmes and projects avails opportunities to build the capacities of the business sector and enable the private sector to engage strongly in:

- Investment in different types of agricultural activities according to the signals of this programme (incentives, facilities offered by the government, development priorities).
- Building strategic partnership with the foreign private sector in the designated investment areas under the auspices and support of the government.
- Participation of the private sector in agricultural research programmes with a view to producing improved technologies that will meet demand in local and international markets.

## **10. Transformation of the Role of Producer Associations**

The historical developments in the agricultural sector and the management systems which prevailed in this sector for a long time has led to the domination of the trade union behaviour which emphasizes extracting maximum benefits (including subsidies) to members de-emphasizing upgrading their skills and raising their productivity.

This programme focuses on the transformation of the producers' associations to ones with a strong interest in the development of farming as a profession. This will be achieved through the programmes and policies which emphasize the leading role of farmers and livestock owners in agricultural production. The programmes will build the capacities of these rural groups with a view to enabling them to acquire and use new technologies and respond positively to economic opportunities. Such transformation will be reflected in:

- The ability of the producers to bear the responsibility of taking important decisions and balancing between their rights and obligations.
- Rehabilitation of the producer by building his capacities to deal with economic and technical issues.
- Encouragement and assistance of producers to organize themselves into production and marketing co-operatives or commodity-oriented producer associations so as to qualify for group lending and facilitate access to inputs.
- Well organized and responsible producer organizations will build credibility vis-à-vis service providers and promotes successful mutual relations.
- The transformation of producer organizations necessitates drafting a new law which gives farmers and pastoralists the responsibility to take the decisions which affect their welfare and accept the consequences of these decisions. To speed up this transformation, the government should provide incentives and implement laws and regulations which induce the desired change.

## **11. Agricultural Management**

Recent evaluation studies have identified the weakness and failure of agricultural management as a key factor behind the low performance of the agricultural sector. The significance of the role of the agricultural management stems from the fact that these managements undertake the crucial decisions which affect the performance of the schemes. The producers have a limited role in the decision-making process and their needs and priorities are often not taken into account.

There are many reasons behind the weakness of management including:

- ✦ Most of those in leadership positions lack the necessary training and experience in management and are not exposed to new styles and approaches in management.
- ✦ Lack of support facilities and training programmes to upgrade the capacities of the supporting staff.
- ✦ Low financial incentives create an atmosphere of depression and dampen the spirit of competition and innovation.
- ✦ The continuation of the age-old systems and methods of production does not present any necessity or need for management reform.

To overcome these problems a programme for the rehabilitation of agricultural management has been approved under the programmes for building the capacities of producers and institutions.

## **12. Creation of a Think Tank**

The implementation of the agricultural Revival Programme requires making use of the rare and distinguished national expertise in agriculture (crops and livestock) and the associated industries to assist in the design and evaluation of the programmes and activities. To fulfill this the following actions will be taken:

- ✦ Assess the needs of experts in different fields.
- ✦ Identify and classify distinguished experts by profession and specialization.
- ✦ Involve those experts in project design and evaluation of impacts of projects and policies.
- ✦ Establishment of a distinguished training center for capacity building of employees of federal and state institutions, farmers and private sector, making use of national experts as trainers.
- ✦ Training abroad of outstanding manpower in research centers, universities and government institutions through training abroad with a view to keeping abreast of technological innovations and development.

### **13. Information, Communication and Awareness Raising**

- ✧ Establishment of a parallel programme using various means of information and communication to raise awareness of the Public about the objectives and pillars of agricultural development. This programme will provide information and assist in convincing all stakeholders to interact with the Revival Programme.
- ✧ The communication programme will underscore the Revival Programme as the only way to achieve a sustainable economic development, reduce poverty, develop the rural sector and generate employment.
- ✧ The programme should be projected not only as a government programme but as an opportunity for triggering an "Alliance for Development" which will unify and rally all national political forces behind it and enlist the support of the international community.

### **14. The Role of International Cooperation in Supporting the Programme**

The major objectives of this programme consisting of poverty reduction, food security, protection and sustainable management of natural resources and the development of the rural areas, qualify for the support of international community in fulfillment of the Millennium Development Goals, the World Food Summit, and are in line with the commitments of the Sudan to the New Partnership for Agricultural Development (NEPAD) launched by the African Union. Therefore, wide scale and effective contacts and negotiations should be made to establish strategic relations with interested friendly countries, international organizations and donor countries to contribute effectively to the finance of this programme.

The success of these contacts will depend on the following:

- ✧ Working out a joint programme of work to be prepared by all stakeholders.
- ✧ Instruct diplomats and Sudanese embassies to take this programme as a high priority in their agenda.
- ✧ Mobilize and motivate the national private sector to interact with their international counterparts to establish strategic partnerships in production, processing and marketing of agricultural production.
- ✧ Close coordination with the commodity development councils.
- ✧ The Ministry of Finance and National Economy should be responsible for leading this effort. This may necessitate establishing a special focal point within the Ministry of Finance and National Economy with an experienced staff and headed by a highly qualified person. The focal point will coordinate with other related institutions.

Table 19 presents projects funded by donors and those with secure sources of finance. The total cost of these projects amounts to US\$ 275 million out of which 51.5 million are budgeted for 2008, US\$ 85 million for 2009, US\$ 62 million for 2010 and US\$ 36 million for 2011.

**Table 19: Projects with Secured Foreign Financing (2008 – 2011)**

Project	Location	Objectives	Cost in US\$ million			
			2008	2009	2010	2011
Rural development, rural roads (European Development Fund: Box No 10)	War-affected states	Construction of rural roads, for access to markets to facilitate marketing of agricultural and livestock products	22	25	25	25
Integrated food security information system for policy support	National	Building an integrated food security information base in all states	4	4	3	0
Recovery of Productive Capacities in Sudan SPCR	Nile, Red Sea, South Kordofan, Blue Nile states	Building manpower and institutional capacities and farmers' institutions	6	6	5	5
Livestock Survey (LESP)	National	Control of CSPP and other livestock diseases to declare Sudan disease-free	2.5	1.5	1.5	1.5
Recovery of Productive capacities Crop and pasture project for improvement of livelihood in South Kordofan	South Kordofan	Establishment of water points along livestock routes	1	2.5	1.5	1.5

Project	Location	Objectives	Cost in US\$ million			
			2008	2009	2010	2011
Recovery of Productive capacities: improvement of livelihood and promotion of integrated rural development in Blue Nile State	Blue Nile State	Development of fisheries, providing livestock routes with water, assisting women artisans and improving rural marketing	1	2.5	1.5	1.5
Rehabilitation of Tokar Delta Scheme	Red Sea	Training of farmers, control of meskit tree, improve irrigation system, support users associations, build capacities in agriculture	1	2,5	1,5	1,5
Develop livestock marketing systems	National	Develop of livestock systems	5	10	5	0
Development of gum arabic	Gum Arabic Belt	Development of Gum Arabic Belt and support of gum producers	1	3	3	0
Development of agricultural extension services	National	Development of agricultural extension services	8	28	15	0
<b>Total</b>			<b>51.5</b>	<b>85.0</b>	<b>62.0</b>	<b>36.0</b>



## **15. The Threats**

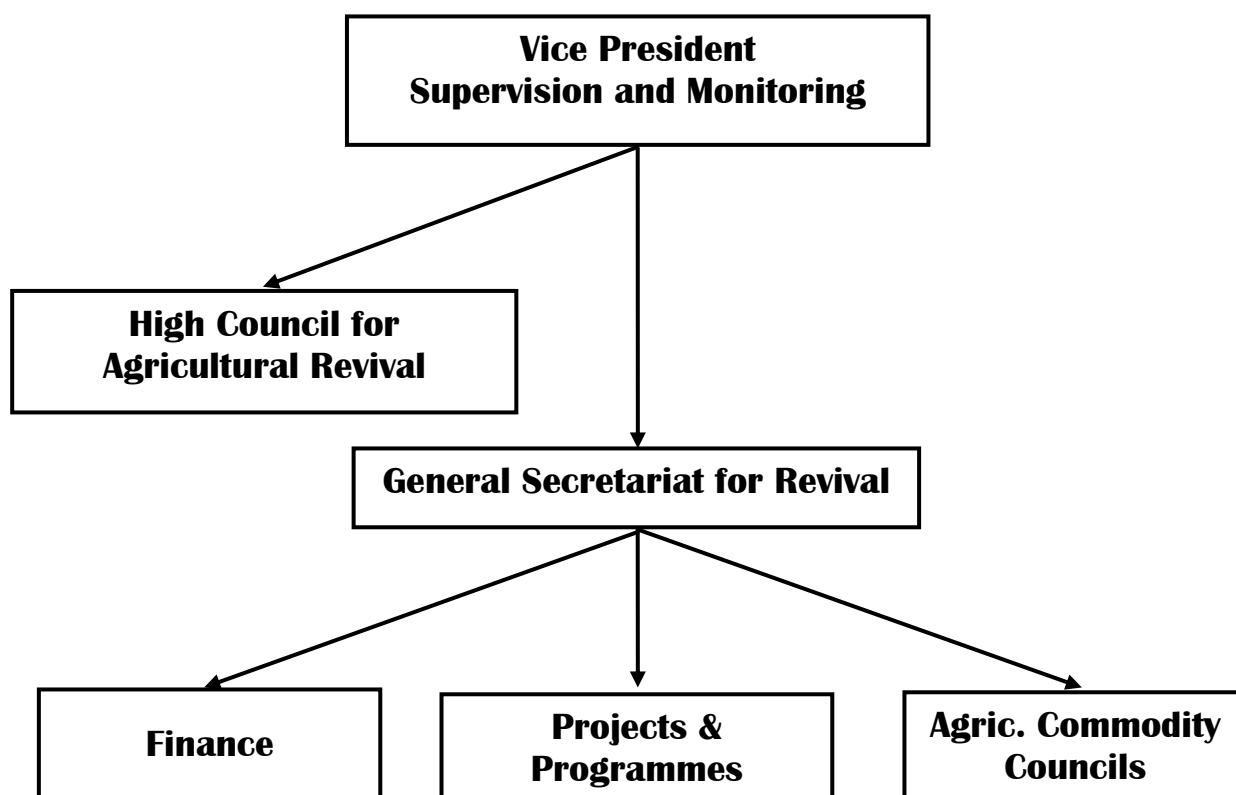
- ↗ Failure to translate the existing strong commitment declared by the government towards achievement of the Agricultural Revival into appropriate policies and to provide the necessary funds and technical assistance adequately and timely.
- ↗ Failure to obtain the financial resources needed to implement the different components and activities of the programme, and the delay in establishing the necessary contacts to avail adequate resources from local and foreign sources.
- ↗ Inadequate implementation of policies (Risk management fund and insurance) which reduce risk and uncertainties as a result of variability of production from one season to the other, especially in traditional and the semi-mechanized rain-fed sectors.
- ↗ Continuation of low performance in civil service institutions due to lack of incentives and failure to implement the capacity building programme.
- ↗ Failure to restructure and reform institutions in the agricultural sector, introduce and implement land use reforms, reform production relations and implement appropriate modalities of integration between crops and livestock.

## 16. Mechanism for Supervision, Monitoring and Evaluation

The successful implementation of this comprehensive programme requires:

- ⇒ Assignment of the responsibility of supervision over the programme to, His Excellency, the Vice President of the Republic to ensure the continuation of support at the highest political level.
- ⇒ Formation of the high Council for Agricultural Revival chaired by the Vice President and consisting of the ministers of the economic sector, representatives of farmers and pastoralists and governors of the states. The terms of reference of this council are:
  - ⇒ To avail resources and approve plans and policies to build the capacities of the public and private sectors.
  - ⇒ To form and monitor the performance of commodity development councils.
  - ⇒ Review the Agricultural Revival strategy periodically and introduce any required modifications.
  - ⇒ Send teams for follow up and evaluation and feedback.
- ⇒ Formation of a general secretariat answerable to the Vice President to assist him in supervision, monitoring and evaluation. The secretariat will be charged with the following duties:
- ⇒ Works as a management information system serving the Vice President to enable him to:
  - ⇒ Identify the strategic issues which affect the implementation of the programme.
  - ⇒ Support the technical, professional, administrative and executive capacities of the programme, especially the commodity development councils.
  - ⇒ Monitor efficiency and effectiveness of resource utilization to realize the objectives.
- ⇒ Work as a reservoir of supporting information services and a management information base for the council.
- ⇒ Provide information on the performance of the revival programmes for those interested.
- ⇒ Continuous feedback to the vice President and the council about developments in the implementation of the programme.
- ⇒ Implement the monitoring and evaluation system approved by the council.

## 16.1. Structure of the Organization for Supervision and Monitoring of the Programme



For the proper implementation of the Revival Programme, the general secretariat should make sure that the concerned institutions at the federal and state levels have prepared the projects documents adequately indicating the technical, economic and social feasibility of the projects and their environmental impacts. It is also equally important to ensure that all stakeholders have participated at the various stages of the project cycle.

At the state level each state will form an organizational structure, under the governor, similar in its composition to the federal structure in addition to the concerned institutions and the directors of the projects.

## 16.2. Guidelines for Monitoring and Evaluation:

To be qualified for finance, the projects should be prepared according to the following formats:

- The objective of the programme or project. This includes the quantitative targets and indicators of performance and must achieve at least one of the objectives of the Agricultural Revival.

- ⇒ A baseline survey showing the situation before the implementation of the project.
- ⇒ Components of the project.
- ⇒ Target beneficiaries
- ⇒ The required inputs
- ⇒ Outputs of the projects
- ⇒ Duration of the project
- ⇒ Milestones during the implementation period
- ⇒ The institutions responsible for implementation and the director for each project.
- ⇒ Other government institutions involved in the implementation of the project, their exact roles and arrangements for coordination.
- ⇒ The expected risks and the stand-by plans for dealing with them.
- ⇒ The cost of the project and details of finance to be elaborated following the annual budget formats designed by Ministry of Finance.
- ⇒ The project document should include a component for capacity building to ensure sustainability.
- ⇒ The number of national labour force employed by the project. Labour-intensive projects are highly encouraged.
- ⇒ The implementation of the project will follow the directives and regulations to be issued by the High Council, including:
  - ⇒ Advertisement of the project in the media institutions with wide coverage to guarantee competition, transparency and promotion.
  - ⇒ No funds will be released to any implementation body unless a complete feasibility study is submitted showing the stages of implementation and the cost of each stage.
  - ⇒ No funds will be released to finance a later stage unless a certificate of implementation of the preceding stage is submitted to the Council endorsed by a consultant body appointed by the Council.
  - ⇒ Periodic quarterly reports and biannual and annual evaluation should be submitted to the Vice President and the Council for each project/programme.
  - ⇒ The general secretariat will undertake a final evaluation for each project. The evaluation should indicate clearly the impacts and results against target, and the opportunities for sustaining these impacts.

## **17. Expected Outputs**

This part of the document shows the expected outcomes of the programmes. These outcomes are based on certain assumptions and implementation arrangements and will not be realized unless the following policy actions are taken:

- ✧ Building of the capacities of manpower and institutions and the commitment to use technologies and inputs specified in the programme.
- ✧ Implementation of the infrastructure and all the inputs and outputs as planned and on time.
- ✧ Close monitoring of project implementation to control project results and take corrective measures immediately if need be.
- ✧ Involve beneficiaries at all stages of project cycle because the satisfaction of the beneficiaries is the most important indication of success.
- ✧ Using technologies which are acceptable to the producers and the society.
- ✧ Avoid hasty decisions on the results of the programme in the early stages. For instance, it takes two years before the positive effects of rural routes are felt.
- ✧ The project effects could be influenced by factors which can not be kept under control such as rainfall, floods ... etc.

### **17.1. Agricultural Production:**

It is expected that the Agricultural Revival Programme will bring about many economic and social effects by 2011. Most important of these effects is the stability of the producers in the rural areas, achievement of food security and poverty reduction and protection and sustainable use of natural resources.

To achieve the expected outputs in the agricultural side emphasis will be made on the following strategies and actions:

- ✧ Increase output per unit area and improve the quality of raw and processed products to improve the competitiveness of our commodities in the local and international markets.
- ✧ The programme depends on six factors to realize agricultural development: improved infrastructure, capacity building and human resources development, supporting services, improved agricultural management systems, supervision, monitoring & evaluation and recovery of the productive capacities of the existing projects.

- ✧ Based on these strategies and action the productivity of sorghum in the irrigated sector will increase from 1.5 tons per feddan to 2.5 tons per feddan by 2011 . In the semi-mechanized and traditional rainfed sector, productivity of sorghum will increase from 0.3 ton per feddan to 0.55 tons per feddan. The productivity of wheat will increase from 1.1 ton to 1.6 tons per feddan by 2011.
- ✧ In the case of sesame, the productivity will increase from 127 kg in the traditional rainfed sector and 132 kg in the semi-mechanized rainfed sector to 225 kg and 209 kg, respectively. The productivity of other crops will also increase significantly as can be seen in the annexes to this document.
- ✧ The areas under sorghum and millet will not change as the emphasis will be on increase in yields per unit area. The areas under sesame and groundnuts will increase up to their historical levels.
- ✧ The production and yield of rainfed cotton will increased due to the strong international demand for short staple cotton. Also areas under promising crops such as sunflower, maize and melon seeds will be increased.
- ✧ The area under wheat will reach 1.6 million feddans in the last year of the programme mainly in the Nile and Northern states, Gezira and other irrigated projects. The rising wheat prices in the international markets have provided a good incentive for farmers to grow wheat.
- ✧ The areas under forests and pastures will increase to 1.5 million feddans in the irrigated sector and 6.5 million feddans in the rainfed sector.

## **17.2. Animal Production:**

The programme is expected to increase the national herd to 142.8 million heads and the improvement of the quality of livestock products by virtue of the expansion of irrigated and rainfed farms and ranches, increased production of forage crops and feeds and the intensification of the veterinary health care. Consequently the expected outcomes of the programme are:

- ✧ The production of red meat will increase from 1.8 million ton in 2008 to 2.8 million ton in 2011, a 65% increase.
- ✧ The quantity of milk will increase from 7.7 million tons in 2008 to 11.6 million tons in 2011, a 59% increase.
- ✧ The production of broilers and eggs will increase from 36 and 35 thousand tons in 2008 to 99 and 96 thousand tons in 2011, respectively.
- ✧ The production of fish meat will increase from 77 thousand tons to 195 thousand tons. The quantity of skins and hides produced will increase from 46.7 million pieces to 66 million pieces in 2011.

### **17.3. General Indicators:**

- The programme will reduce the rapid rate of migration from rural to urban sectors, generate employment opportunities in the agricultural sector and the agro-based industries as well as the services related to the agricultural sector.
- The programme will establish the foundation for a balanced development in all parts of the country through its emphasis on the development of the traditional sector and the implementation of the water harvesting programme which will have a wide spread effect.
- The sustainable use of natural resources will reduce conflicts over them and strengthen social peace.
- The country will continue to realize self-sufficiency in sorghum, millet, fruits, vegetables, oil seeds and meat, and will realize self-sufficiency in wheat, rice, chicken meat, eggs, fish and milk.
- Enough raw materials will be produced to satisfy local industries and utilize the idle capacities in the agro-industrial sector.
- The implementation of the infrastructure programmes will open valuable opportunities for the private sector to expand and build its capacities.

### **17.4. Import Substitution**

- The programme will achieve self-sufficiency in wheat at the end of the period. The value of wheat produced is estimated at US\$ 1.15 billion. The wheat import bill is expected to decrease from US\$ 603 million in 2008 to a surplus of US\$ 36 million in 2011, to be used as an emergency reserve.
- The deficit in sugar will decrease from US\$ 86 million in 2008 to US\$ 51 in 2011 in spite of the expected increase in the population and the change in consumption patterns in favour of the sugar-based products due to increase in urbanization and per capita income. Efforts to increase self-sufficiency in sugar will continue through the key investment projects which will be presented to investors.
- The programme will contribute to self-sufficiency in chicken meat and eggs, fish, milk and milk products.

### **17.5. Export Promotion:**

- The country is expected to realize a minimum surplus of 2.4 million tons of sorghum annually. Considering the rapid increase in the prices of cereals in the world market and the increase in demand for sorghum as a feed in Saudi Arabia and other countries, the prospects for sorghum exports look bright.
- The exports of sesame are expected to increase from US\$ 174 million to US\$ 360 million in 2011. The exports of watermelon seeds and Karkade are expected to reach US\$ 52 million annually.

Exports of groundnuts are expected to reach US\$ 615 million. The exports of fodder, fruits, vegetables and gum arabic are also expected to increase.

- The increase in the demand for cotton and the rising price trends will motivate producers to boost cotton production. The expected results will be US\$ 884 million as export proceeds.
- All in all, the total value of agricultural exports is estimated to reach US\$ 4.5 billion in 2011 as shown in the annexes.
- The value of livestock exports are expected to increase to US\$ 635 million in 2011 compared to US\$ 274 in 2008 (this does not include boarder trade).
- The value of exports of cattle, sheep, goats and camels will increase from US\$ 11.8 million, US\$ 141.3 million, US\$ 5.2 million and US\$ 33.6 million in 2008 to US\$ 129 million, US\$ 276.4 million, US\$ 12.8 million and US\$ 48.5 million in 2011, respectively.
- The export value of fish, tauna and shrimp will increase from US\$ 4 million, US\$ 10 million and US\$ 30 million in 2008 to US\$ 10 million, US\$ 30 million and US\$ 60 million in 2011.
- The value of exports of hides and skins will increase from US\$ 38.9 million in 2008 to US\$ 68.4 million in 2011.



## **18. Conclusion**

The strict and serious implementation of the Agricultural Revival Programme will induce a sustainable growth in agricultural and industrial production. Consequently this will be translated into an increase in national income and agricultural exports. Other related sectors such as trade, transport and communication will also flourish.

The programme is also expected to have a positive impact on employment generation, poverty reduction and improvement of the quality of life in the rural sector.

For all these results and impacts, this programme constitutes a comprehensive approach for agricultural development which deserves a strong political support and the allocation of the required resources. It is imperative that a sustainable increase in production and productivity in the agricultural and industrial sectors will not take place unless the values of hard work, appreciation of the value of time and supremacy of the public interest is inculcated into the public.

The revival of these values requires emphasis on building the capacities of manpower through awareness raising, education and training.

## Annex (1)

### Tables Annexed to the Report

**Table 1: Relative Effects of the Components of the Programmes and Projects in the Irrigated Sector (%):**

<b>Factors/ Year</b>	<b>2008/07</b>	<b>2009/08</b>	<b>2010/09</b>	<b>2011/10</b>
Improvement in Infrastructure	5	10	15	20
building Producers' Capacities	5	10	15	20
Support Services	10	20	30	50
Improvement of Management Systems	5	10	15	20
Improvement in Capacities of Existing Schemes	10	20	30	30
Monitoring and Evaluation	5	10	15	20
<b>Total</b>	<b>40</b>	<b>80</b>	<b>120</b>	<b>160</b>

**Table (2): Relative Effects of the Components of the Programmes and Projects in the Mechanized Rainfed Sector (%):**

<b>Factors/ Year</b>	<b>2008/07</b>	<b>2009/08</b>	<b>2010/09</b>	<b>2011/10</b>
Improvement in Infrastructure	5	10	15	20
building Producers' Capacities	5	10	15	20
Support Services	10	20	30	50
Improvement of Management Systems	5	10	15	20
Monitoring and Evaluation	5	10	15	20
<b>Total Impact</b>	<b>30</b>	<b>60</b>	<b>90</b>	<b>130</b>

**Table (3): Relative Effects of the Components of the Programmes and Projects in the Mechanized Rainfed Sector (%):**

<b>Factors/ Year</b>	<b>2008/07</b>	<b>2009/08</b>	<b>2010/09</b>	<b>2011/10</b>
Improvement in Infrastructure	5	10	15	20
building Producers' Capacities	5	10	15	20
Support Services	10	20	30	50
<b>Total Impact</b>	<b>20</b>	<b>40</b>	<b>60</b>	<b>90</b>

**Table (4): Productivity Projections for the Main Crops in the Irrigated Sector 2008 - 2011**

Crop	Current Productivity	Productivity Projections (kg/ feddan)			
		07/2008	08/2009	09/2010	10/2011
Sorghum	952	1310	1684	2059	2534
Wheat	1067	1109	1200	1300	1600
Rice	1078	1680	2160	2640	3120
Corn	1200	1680	2160	2640	3120
Groundnuts	1088	1848	2376	2904	3432
Cotton	650	600	775	850	920
Sunflower	652	1142	1469	1795	2122
Sugar cane*	4.5	4.7	5.0	5.2	5.5
Fodder*	12.6	15.1	18.1	21.7	26.0
Vegetables*	5.9	7.8	8.5	10.2	11.2
Fruits	7.3	8.8	10.5	12.6	15.1

\* Productivity in tons per feddan

1 Feddan = 0.42 ha

**Table (5): Productivity Projections for the Main Crops in the Sem-mechanized Sector 2008 – 2011:**

Crop	Current Productivity	Productivity Projections (kg/ feddan)			
		07/2008	08/2009	09/2010	10/2011
Sorghum	234	314	387	460	556
Millet	168	224	275	327	395
Corn	220	448	552	655	794
Sesame	90	127	157	186	225
Cotton	120	135	180	210	225
Sunflower	370	486	598	711	860
Guar	220	374	461	547	662

**Table (6): Productivity Projections for the Main Crops in the Traditional rainfed Sector 2008 – 2011:**

Crop	Current Productivity	Productivity Projections (kg/ feddan)			
		07/2008	08/2009	09/2010	10/2011
Sorghum	290	360	420	480	570
Millet	152	158	183	210	250
Wheat	500	660	770	880	1045
Corn	240	330	385	440	522
Sesame	80	132	154	176	209
Groundnuts	246	354	416	475	564
Cotton	110	125	170	180	200
Watermelon seeds	15	33	38.5	44	52
Karkade	37	66	77	88	105

**Table (7): Areas Projections for the Main Crops in the Irrigated Sector 2008 – 2011:**

<b>Crop</b>	<b>Current Area (000 fed.)</b>	<b>Areas Projections (000 feddan)</b>			
		<b>07/2008</b>	<b>08/2009</b>	<b>09/2010</b>	<b>10/2011</b>
Sorghum	1262	1000	1000	1000	1000
Wheat	670	770	1100	1200	1600
Rice	15	37	58	79	100
Corn	49	150	200	250	300
Groundnuts	250	230	270	310	350
Cotton	200	174	600	700	750
Sunflower	66	90	100	110	120
Sugar cane*	175	175	255	325	400
Fodder*	200	180	203	603	400
Vegetables*	480	528	580	639	703
Fruits	280	308	339	373	410
<b>Total</b>	<b>3647</b>	<b>3642</b>	<b>4705</b>	<b>5589</b>	<b>6133</b>

**Table (8): Area Projections for the Main Crops in the Semi-mechanized Sector 2008 – 2011:**

<b>Crop</b>	<b>Current Area (000 fed.)</b>	<b>Area Projections (000 feddan)</b>			
		<b>07/2008</b>	<b>08/2009</b>	<b>09/2010</b>	<b>10/2011</b>
Sorghum	11247	11500	11150	11150	11150
Millet	638	400	400	400	400
Corn	7	24	28	32	36
Sesame	1721	2900	3000	3100	3200
Cotton	47	57	250	350	500
Sunflower	88	250	500	750	1000
Guar	9	20	30	40	50
<b>Total</b>	<b>13757</b>	<b>15151</b>	<b>15358</b>	<b>15822</b>	<b>16336</b>

**Table (9): Area Projections for the Main Crops in the Traditional Rainfed Sector 2008 – 2011:**

Crop	Current Area (000 fed.)	Area Projections (000 feddan)			
		07/2008	08/2009	09/2010	10/2011
Sorghum	7979	7500	7500	7500	7500
Millet	10000	8000	8000	8000	8000
Wheat	10	30	45	60	75
Corn	14	312	384	456	528
Sesame	1657	2700	2800	2900	3000
Groundnuts	1676	2100	2800	3500	4200
Cotton	40	17	150	150	200
Watermelon seeds	1600	1800	2200	2600	3000
Karkade	500	600	800	1000	1200
<b>Total</b>	<b>23476</b>	<b>23059</b>	<b>24679</b>	<b>26166</b>	<b>27703</b>

**Table (10): Area Projections for the Main Crops in Sudan 2008 – 2011:**

Crop	Current Area (000 fed.)	Area Projections (000 feddan)			
		07/2008	08/2009	09/2010	10/2011
Sorghum	20488	20000	20000	20000	20000
Millet	8415	8415	8415	8415	8415
Wheat	680	800	1040	1125	1210
Corn	70	486	512	738	864
Rice	15	37	58	79	100
Sesame	4058	5630	5854	6077	6300
Groundnuts	1886	2330	3070	3810	4550
Cotton	287	248	1000	1200	1450
Sunflower	161	340	600	860	1120
Watermelon seeds	1600	1800	2200	2600	3000
Karkade	500	600	800	1000	1200
Guar	9	20	30	40	50
Fodders	200	280	320	360	400
Vegetables	480	528	580	639	703
Fruit	280	308	339	373	410
Sugar cane	175	175	255	325	400
<b>Total</b>	<b>39304</b>	<b>41997</b>	<b>45073</b>	<b>47641</b>	<b>50172</b>

**Table (11): Production Projections for the Main Crops in the Irrigated Sector 2008 – 2011:**

Crop	Current Production	Production Projections (000 ton)			
		07/2008	08/2009	09/2010	10/2011
Sorghum	1200	1231	1583	1935	2382
Millet	6	10	12	15	18
Wheat	668	854	1320	1560	2560
Corn	56	237	406	620	980
Rice	23	58	118	196	293
Sesame	*	29	66	95	175
Groundnuts	272	400	603	846	1129
Cotton	220	106	465	595	690
Sunflower	43	268	414	590	798
Sugar cane	750	773	800	900	1000
Fodders	2700	3974	5444	7343	9776
Vegetables	2600	3030	4634	6126	7402
Fruit	2000	2548	3345	4418	5820
<b>Total</b>	<b>10538</b>	<b>13518</b>	<b>19210</b>	<b>25239</b>	<b>33023</b>

\*

**Table (12): Production Projections for the Main Crops in the Semi-mechanized Sector 2008 – 2011:**

Crop	Current Production	Production Projections (000 tons)			
		07/2008	08/2009	09/2010	10/2011
Sorghum	1868	2888	3560	4232	5115
Millet	82	72	88	105	126
Corn	3	9	12	17	23
Sesame	133	295	377	461	576
Cotton	10	8	45	73	112
Sunflower	30	97	239	427	688
Guar	2	6	11	18	26
<b>Total</b>	<b>2128</b>	<b>3375</b>	<b>4332</b>	<b>5333</b>	<b>6666</b>

**Table (13): Production Projections for the Main Crops in the Traditional Rainfed Sector 2008 – 2011:**

Crop	Current Production	Production Projections (000 tons)			
		07/2008	08/2009	09/2010	10/2011
Sorghum	1930	2052	2394	2736	3249
Millet	708	960	1113	1277	1520
Wheat	2	15	26	40	60
Corn	11	78	112	152	210
Sesame	109	271	328	388	477
Groundnuts	292	565	885	1264	1800
Cotton	14	2	26	27	40
Watermelon seeds	26	45	64	87	119
Karkade	24	30	47	67	96
<b>Total</b>	<b>3116</b>	<b>4018</b>	<b>4995</b>	<b>6038</b>	<b>7571</b>

**Table (14): Production Projections for the Main Crops in Sudan 2008 – 2011:**

Crop	Current Production	Production Projections (000 tons)			
		07/2008	08/2009	09/2010	10/2011
Sorghum	4998	6171	7537	8903	10746
Millet	796	1042	1213	1397	1664
Wheat	670	1109	1320	1560	2560
Corn	70	324	530	789	1213
Rice	23	58	118	196	293
Sesame	242	595	771	944	1228
Groundnuts	564	965	1488	2110	2929
Cotton	244	116	536	695	842
Sunflower	73	365	653	1017	1486
Sugarcane	750	773	800	900	1000
fodders	2520	3974	5444	7343	9776
Vegetables	2832	3871	4634	6126	7402
Fruits	2044	2548	3345	4418	5820
Watermelon seeds	26	45	64	87	119
Karkade	24	30	47	67	96
Guar	2	6	11	18	26
Gum Arabic	17	20	25	30	35
<b>Total</b>	<b>15895</b>	<b>22012</b>	<b>28536</b>	<b>36600</b>	<b>47235</b>

**Table (15): Quantities Available for Export 2008 – 2011:**

Crop	Current Situation	Projections (000 tons)			
		07/2008	08/2009	09/2010	10/2011
Sorghum					
Production	4998	6171	7537	8903	10746
Consumption	3500	3679	3860	4051	4254
Available for Export	1498	2492	3677	4852	6492
Millet					
Production	796	1042	1213	1397	1664
Consumption	728	757	787	818	852
Available for Export	68	285	426	579	812
Wheat					
Production	670	1100	1320	1560	2560
Consumption	2000	2130	2241	2358	2480
Available for Export	(1330)	(1030)	(921)	(798)	80
Corn					
Production	70	324	530	789	1213
Consumption	79	95	114	137	164
Available for Export	(9)	229	416	652	1049
Rice					
Production	23	58	118	196	293
Consumption	62	68	75	83	124
Available for Export	(39)	(10)	43	113	169
Sesame					
Production	242	595	771	944	1228
Consumption	243	327	424	519	675
Available for Export		268	347	425	553
Groundnuts					
Production	564	965	1488	2210	2929
Consumption	386	675	1042	1477	2050
Available for Export	178	290	446	633	879
Cotton					
Production	244	116	536	695	842
Consumption	44	46	79	116	149
Available for Export	200	70	457	579	693



Crop	Current Situation	Projections (000 tons)			
		07/2008	08/2009	09/2010	10/2011
Sunflower					
Production	73	365	653	1017	1486
Consumption	124	255	457	712	1040
Available for Export	(51)	110	196	305	446
Fodders					
Production	2520	3974	5444	7343	9776
Consumption	2452	3577	4900	6609	8798
Available for Export	68	397	544	734	978
Vegetables					
Production	2832	3871	4634	6126	7402
Consumption	2396	3484	4171	5513	6662
Available for Export	436	387	463	613	740
Fruits					
Production	2044	2548	3345	4418	5820
Consumption	1729	2293	3010	3976	5238
Available for Export	315	255	335	442	582
Watermelon seeds					
Production	26	45	64	87	119
Consumption	6	13	19	26	36
Available for Export	20	32	45	6	83
Karkade					
Production	24	30	47	67	96
Consumption	12	21	33	47	67
Available for Export	12	9	19	20	29
Guar					
Production	2	6	11	18	26
Consumption	2	6	11	18	26
Available for Export	0	0	0	0	0
Sugar					
Production	750	773	800	900	1000
Consumption	1050	1081	1114	1147	1181
Available for Export	(300)	(308)	( 314)	( 247)	(181)
Gum Arabic					
Production	19	23	28	34	40
Consumption	2	3	3	4	5
Available for Export	17	20	25	30	35

\* Figures between brackets are negative values.

**Table (16): Quantities and estimated Value for of Imports 2008 – 2011 for Sugar and Wheat:**

Crop	Current situation	Projections (000 tons)			
		07/2008	08/2009	09/2010	10/2011
Sugar					
Production (000 ton)	750	773	800	900	1000
Consumption (000 ton)	1050	1081	1114	1147	1181
Surplus/deficit (000 ton)	(300)	(308)	( 314)	( 247)	(181)
Value of local production (million US\$)	210	216	224	252	280
Value of imported quantity (million US\$)	84	86	88	69	51
Wheat					
Production (000 ton)	670	790	1320	1560	2560
Consumption (000 ton)	2000	2130	2241	2358	2480
Surplus/deficit (000 ton)	(1330)	(1340)	(921)	(798)	80
Value of local production (million US\$)	301	355	594	702	1152
Value of imported quantity (million US\$)	599	603	414	359	36

Wheat consumption increased by 6.5% annually.

Values between bracket are negative

**Table (17): Details of Production and Value of Cotton 2008 – 2011:**

	Item	2007/2008	2008/2009	2009/2010	2010/2011
<b>irrigated</b>	<b>Area (000 feddan)</b>	<b>78</b>	<b>300</b>	<b>300</b>	<b>300</b>
	Productivity ( /fed.)	4	5	5.5	6
	<b>Production (000 )</b>	<b>312</b>	<b>1500</b>	<b>1650</b>	<b>1800</b>
	Price (in dollars)	90	90	95	90
	<b>Revenue (million dollar)</b>	<b>28</b>	<b>135</b>	<b>148.5</b>	<b>162</b>
<b>irrigated</b>	<b>Area (000 feddan)</b>	<b>96</b>	<b>300</b>	<b>400</b>	<b>450</b>
	Productivity ( /fed.)	4.6	6	6.5	7
	<b>Production (000 )</b>	<b>441</b>	<b>1800</b>	<b>2600</b>	<b>3150</b>
	Price (in dollars)	70	70	70	70
	<b>Revenue (million dollar)</b>	<b>31</b>	<b>126</b>	<b>182</b>	<b>220.5</b>
<b>Rainfed</b>	<b>Area (000 feddan)</b>	<b>74</b>	<b>400</b>	<b>500</b>	<b>700</b>
	Productivity ( /fed.)	3	4	4.5	5
	<b>Production (000 )</b>	<b>222</b>	<b>1600</b>	<b>2250</b>	<b>3500</b>
	Price (in dollars)	65	65	65	65
	<b>Revenue (million dollar)</b>	<b>14</b>	<b>104</b>	<b>146.25</b>	<b>227.5</b>
<b>Total</b>	<b>Area (000 feddan)</b>	<b>248</b>	<b>1000</b>	<b>1200</b>	<b>1450</b>
	<b>Production (000 )</b>	<b>975</b>	<b>4900</b>	<b>6500</b>	<b>8450</b>
	<b>Consumption (0000)</b>	<b>100</b>	<b>400</b>	<b>600</b>	<b>700</b>
	<b>Available</b>	<b>875</b>	<b>4500</b>	<b>5900</b>	<b>7750</b>
	<b>Revenue (million dollar)</b>	<b>65</b>	<b>337</b>	<b>442</b>	<b>581</b>
	<b>Revenue of (million dollar)</b>	<b>40</b>	<b>198</b>	<b>233</b>	<b>303</b>
	<b>Total Revenue (million dollar)</b>	<b>105</b>	<b>535</b>	<b>676</b>	<b>884</b>

**Table (18): Quantities and Value of Commodities Available for Export 2008 – 2011:**

Crop	Current Situation	Projections			
		07/2008	08/2009	09/2010	10/2011
Sorghum					
Available for Export (000 ton)		2492	3677	4852	6492
Price (in dollars)		200	200	200	200
Value (in million dollar)		498	735	970	1298
Sesame					
Available for Export (000 ton)	166	268	347	425	553
Price (in dollars)	650	650	650	650	650
Value (in million dollar)	108	174	225	276	360
Groundnuts					
Available for Export (000 ton)		290	446	633	879
Price (in dollars)		700	700	700	700
Value (in million dollar)		203	312	443	615
Cotton					
Value (in million dollar)		105	535	676	884
Karkade					
Available for Export (000 ton)		9	19	20	29
Price (in dollars)		1000	1000	1000	1000
Value (in million dollar)		9	19	20	29
Watermelon Seeds					
Available for Export (000 ton)		32	45	61	83
Price (in dollars)		275	275	275	275
Value (in million dollar)		9	12	17	23
Fodders					
Available for Export (000 ton)		397	544	734	978
Price (in dollars)		130	130	130	130
Value (in million dollar)		52	71	95	127
Vegetables					
Available for Export (000 ton)		387	463	613	740
Price (in dollars)		700	700	700	700
Value (in million dollar)		271	324	429	518
Fruits					
Available for Export (000 ton)		255	335	442	582
Price (in dollars)		1000	1000	1000	1000
Value (in million dollar)		255	335	442	582
Gum Arabic					
Available for Export (000 ton)	17	20	25	30	35
Price (in dollars)	2500	2500	2500	2500	2500
Value (in million dollar)	42.5	50	62.5	75.0	87.5
Total		1617	2648.5	3443	4523.5

## Indicators of Livestock and Fishery:

**Table (19): Livestock 2008 – 2011:**

Item	2008/07	2009/08	2010/09	2011/10
Cattle	41255	41541	42125	42420
Sheep	50651	51067	51887	52302
Goats	42938	43276	43450	43624
Camel	4238	4450	4450	4472
<b>Total</b>	<b>139082</b>	<b>140334</b>	<b>141912</b>	<b>142818</b>

**Table (20): Targets of Animal Production 2008 – 2011:**

Item	Current Situation	₡2008	₡2009	₡2010	₡2011
Meat	1725	1815	1996	2296	2755
Milk	7298	7663	8429	9693	11631
Chicken meat	30	36	47	66	99
Egg	30	35	46	64	96
Fish	70	77	92	130	195
Hides&skin (piece)	44500	46725	49996	54996	65995

**Table (21): Indicators of Livestock and Fishery Revenue 2008 – 2011: (according to circulating prices of exported livestock commodities)**

Current Situation	Item	Export Projections			
		2008	2009	2010	2011
Live Cattle					
Number (thousand heads)	3.2	5	10	20	40
Revenue (million dollar)	1.8	2.9	6.3	12.7	25.3
Slaughtered Cattle					
Number (thousand heads)	1.28	5	15	30	60
Revenue (million dollar)	5.8	22.5	67.5	135	270
Live Sheep					
Number (thousand heads)	1500	2000	2300	2760	3212
Revenue (million dollar)	165	220	253	303.6	353.3
Slaughtered Sheep					
Number (thousand heads)	2.7	4	8	12	20
Revenue (million dollar)	14.9	22	44	66	110

Current Situation		Item	Export Projections			
			2008	2009	2010	2011
Live Goats						
Number (thousand heads)		90	100	125	150	200
Revenue (million dollar)		4.5	5	6.3	7.5	10
Slaughtered Goats						
Number (thousand heads)		0.2	0.5	1	1.5	2
Revenue (million dollar)		0.9	2.3	4.5	6.8	9
Live Camel						
Number (thousand heads)		130	180	200	225	250
Revenue (million dollar)		10.4	14.4	16	18	20
Slaughtered Camel						
Number (thousand heads)		0.03	0.1	0.5	1	2
Revenue (million dollar)		0.12	0.4	2	4	8
Fish						
Number (thousand heads)		2	4	6	8	10
Revenue (million dollar)		6	12	18	24	30
Tuna (000 tons)		-	20	25	30	40
Revenue (million dollar)						
Shrimp (000 ton)		-	15	20	25	30
Revenue (million dollar)			225	300	375	450
Hides and Skins						
Cattle	Raw (000 ton)	14	17	11	14	0
	Revenue (million dollar)	22.4	27.2	17.6	22.4	-
	Semi- tanned (000 ton)	9	17	32	42	56
	Revenue (million dollar)	20.7	39.1	73.6	96.6	128.8
Sheep	Semi- tanned (000 dozen)	242	345	431	575	575
	Revenue (million dollar)	13.3	19	23.7	31.6	31.6
Goats	Semi- tanned (000 dozen)	242	345	431	575	575
	Revenue (million dollar)	6.8	9.7	12.1	16.1	16.1
Total Revenue		272.6	651.5	882.1	1164.3	1522.1

**Table (22): Indicators of Livestock and Fishery Revenue 2008 – 2011:**  
(according to prices of the Ministry of Foreign Trade)

Item		Current situation	Export Projections			
			2008	2009	2010	2011
Live Cattle						
Number (thousand heads)		3.2	5	10	20	40
Revenue (million dollar)		1.9	3	6	12	24
Slaughtered Cattle						
Number (thousand heads)		1.28	5	15	30	60
Revenue (million dollar)		2.2	8.8	26.3	52.5	105
Live Sheep						
Number (thousand heads)		1500	2000	2300	2760	3212
Revenue (million dollar)		95	126.7	145.7	174.8	203.4
Slaughtered Sheep						
Number (thousand heads)		2.7	4	8	12	20
Revenue (million dollar)		9.9	14.6	29.2	43.8	73
Live Goats						
Number (thousand heads)		90	100	125	150	200
Revenue (million dollar)		3.6	4	5	6	8
Slaughtered Goats						
Number (thousand heads)		0.2	0.5	1	1.5	2
Revenue (million dollar)		0.5	1.2	2.5	3.7	4.8
Live Camel						
Number (thousand heads)		130	180	200	225	250
Revenue (million dollar)		23.4	32.4	36	40.5	45
Slaughtered Camel						
Number (thousand heads)		0.03	0.1	0.5	1	2
Revenue (million dollar)		0.05	0.2	0.9	1.8	3.5
Fish						
Fish (000 ton)		2	4	6	8	10
Revenue (million dollar)		2	4	6	8	10
Tuna (000 ton)		-	20	25	30	40
Revenue (million dollar)		-	10	18.8	22.5	30
Shrimp (000 ton)		-	15	20	25	30
Revenue (million dollar)		-	30	40	50	60
Hides and Skins						
Cattle	Raw (000 ton)	14	17	11	14	0
	Revenue (million dollar)	9.8	12	7.7	10	0
	Semi- tanned (000 ton)	9	17	32	42	56
	Revenue (million dollar)	7.7	14.5	27.2	35.7	47.6
Sheep	Semi-tanned (000 dozen)	242	345	431	575	575
	Revenue (million dollar)	5.3	7.6	9.5	12.7	12.7
Goats	Semi- (000 dozen)	242	345	431	575	575
	Revenue (million dollar)	3.4	4.8	6	8.1	8.1
Total Revenue		164.75	273.8	366.8	482.1	635

**Remark:**

There is decrease in revenue by 40% because of the difference of price between indicators of Ministry of Foreign Trade and real sale prices. This percentage will increase to 58% during the implementation of ARP if these indicators do not convey the real export prices and the international circulating prices for those commodities.

**Table (23): Prices of Exported Livestock and Fishery Commodities:**

Table (25): Prices of Exported Livestock and Fishery Commodities:				
Item		Circulate Price	Foreign Trade Price	Remarks
Cattle	Live (head)	1900	1800	Average weight of live head of cattle 300 kg
	Slaughtered (ton)	4500	1750	
Sheep	Live (head)	110	1900	Average weight of live head of sheep 35 kg
	Slaughtered (ton)	5500	3650	
Goats	Live (head)	50	40	Average weight of live head of goat 17 kg
	Slaughtered (ton)	4500	2450	
Camel	Live (head)	800	180	-
	Slaughtered (ton)	4000	1750	
Hides and skin				
Cattle	Raw (ton)	1600	700	Average number of cattle skin per ton is 110 piece
	Semi-tanned (ton)	2300	850	
Semi-tanned Sheep (dozen)		55	22	
Semi-tanned goats (dozen)		28	14	
Fish				
Fresh Fish (ton)		3000	1000	Red Sea Fish
Shrimp (000 ton)		15000	2000	
Tuna (000 ton)		1500	750	

**Annex (2)**  
**Matrix on Bank Financing**

<b>Objectives</b>	<b>Policies</b>	<b>Procedures</b>	<b>Implementing Agency (ies)</b>	<b>Starting Date</b>
Increasing the volume of finance allocated to the agricultural sector from national and foreign sources for the implementation of the sectoral activities	Increasing the resources of the Agricultural Bank portfolio from non-traditional sources	Re-structuring the Agricultural Bank and increasing its capital from joint portfolios: government finance (Ministry of Finance and National Economy and National Bank of Sudan), foreign resources, future contracts, commodity credits contracted by the Ministry of Finance and National Economy.	Ministry of Finance and National Economy, National Bank of Sudan, Agricultural Bank	January 2008
	Transformation of Livestock Bank to a development bank	Re-structuring and increasing the share of Ministry of Finance and National Economy in the Livestock Bank to 51% as a first stage to contribute to the livestock development programmes in addition to allocation of resources from commodity credits contracted by the Ministry of Finance and National Economy	Ministry of Finance and National Economy, National Bank of Sudan and other sources	During 2008
	Strengthening of the Industrial Development Bank	Increasing the share of the Bank of Sudan in the capital of the Industrial Development Bank to 51% and the share of the Ministry of Finance and National Economy to 49% to contribute to the development of the agro-processing industries in addition to allocation of resources from commodity contracted by the Ministry of Finance and National Economy.	Ministry of Finance and National Economy, National Bank of Sudan and other sources	During 2008
	Financing	Formation of portfolios for agricultural finance	National Bank of Sudan,	Continuous



	Mechanisms	individual finance	specialized commercial banks, micro-finance unit, National Agency for Insurance and Development of Exports	
	Micro credit targeting smallholders and small scale agro-processing industries	Commit banks to set aside 12% of its finance portfolios to the micro-credit sector, allocate funds from the National Bank of Sudan and the Ministry of Finance and National Economy to micro-credit annually; funds allocated by the World Bank for micro-credit; issuing micro-credit finance policies annually; issuing National Bank circulars periodically; innovative non-traditional guarantees to enable beneficiaries to access finance; capacity building of micro-finance providers and beneficiaries; linking repayment of the loan to the beginning of the production stage; reducing the cost of finance to 5% to be borne by the Ministry of Finance and National Economy.	Ministry of Finance and National Economy, Micro-credit Unit; National Bank of Sudan; Bank of Sudan, commercial banks; World Bank	Continuous
Reduction of the Cost of Finance	Cot of finance	Reducing the cost of finance to the agricultural sector at large, livestock and horticultural production, agricultural machinery and wheat production at 7%, 5% and 3% respectively.	Ministry of Finance and National Economy, National Bank of Sudan, Union of Banks, Bank of Sudan, specialized banks	During 2008-2009
	Medium and long term finance for horticultural and	Allow a grace provide ranging between 18 months and 5 years depending on the nature of the project; repayment to be linked to the start of production, accept easy guarantees for giving	Banking Sector	During 2008

	livestock production	credit.		
Linking finance to increase in productivity	Linking finance to agricultural policies	Determine financial requirements through the Ministry of Agriculture and Forestry and the management of the agricultural corporations so as to provide needed finance at the right time.	Ministry of Agriculture and Forestry, the Ministry of Animal Resources and Fisheries, banking sector, management of corporations.	During March 2008 for summer season and July 2008 for winter season
	Provision of services	Finance of infrastructure for the agric. sector roads, wells, slaughterhouses, electricity ... etc) and veterinary and agricultural services	Ministries of: Finance, Agriculture, Animal Resources, Energy and Mining, Industrial Development Bank and Livestock Bank	Continuous
	Agro-industries	Finance industries which process agricultural and livestock products and manufacture inputs	Banking institutions and Industrial Development Bank	March 2008
	Study the establishment of a commodity exchange in Khartoum Stock Exchange	Financing of the agricultural commodities exchange in Khartoum Stock Exchange	Ministry of Finance and National Economy, Ministry of Foreign Trade, National Bank of Sudan, Union of Business Men, Union of Banks, Khartoum Stock Exchange, Management of the Strategic Food Reserves	During 2008
Extending the coverage of the management of agricultural risks	Expanding the coverage of agric. insurance	Support of Agric. Risks Management Fund Insurance against drought and pests and death of livestock	Insurance and re- insurance companies National Agency for Insurance and Development of Exports	March 2008

	Awareness raising of available finance and its modalities for farmers, pastoralists and artisans related to agricultural activities	Issue simple leaflets, using audio-visual aids, establish specialized units in branches of banks in the states	Branches of the National Bank of Sudan, the banking system, microcredit unit, farmers' and pastoralists' unions	March 2008 Continuous
	Linking financing to adoption of new technology	Establishment of specialized monitoring units to ensure use of improved technologies Issue a circular committing banks to finance improved technologies and agric. insurance	National Bank of Sudan and banking institutions	Continuous

Announcing encouraging financial policies timely	Financial policies	Issue financial policy circular and subsequent circular conducive to agric. growth and development	National Bank of Sudan and specialized banks	Continuous
Facilitating access of farmers to bank financing	Guarantees	Accept non-traditional guarantees against finance including movable assets, establishment of financing guarantee institutions, group guarantees, agric. insurance, Zakat, local leaders, savings guarantees	Banking institutions Micro-credit unit	During March 2008
	Developing financing modalities	Invent new modalities of financing suitable to agricultural and livestock production activities	Ministry of Finance and National Economy, National Bank of Sudan, National Authority for Enforcing Shariaa Law, Sudan company for Financial Services	March 2008
	Facilitating farmers' access to financing at their locations	Expand network through non-traditional cost-effective means through opening outlets other than the existing ones and establishing small fixed and mobile branches, making use of new technologies and mobile banking	Banking institutions	2008
Increasing the efficiency of financial institutions to contribute to increase production and productivity	Promotion of agricultural and livestock exports	Reactivate the National Agency for Export Promotion through increasing its capital and looking into the possibility of changing it to a public company to perform its functions of promotion, insurance and financing of the non-oil exports	Ministry of Foreign Trade and other concerned ministries	March 2008














### Matrix of the Investment projects

Specify agricultural investment priorities and efficiency of resource use	Preparation of investment maps for land use in the states and direction of investment to areas who received least development and investment and have a comparative advantage, prepare technically and economically feasible projects	Ministry of Investment, Ministry of Finance and National Economy, and related ministries in states	March 2008
Financing infrastructure for agricultural investment	Encourage foreign partners and national private sector to invest in agricultural infrastructure	Ministry of Investment, related Ministries	March 2008
Encourage supporting logistic services	Grant special privileges to logistics such as refrigeration, storage, transport , packing ...etc	Ministry of Investment, Ministry of Finance and National Economy	March 2008
Taking care of foreign partnerships	Facilitate administrative procedures, identify investment projects which lead agricultural development, grant extra incentives for strategic agricultural projects	Ministry of Investment, Ministry of Finance and National Economy	March 2008

**Annex (3)**  
**Time Table for Implementation**

**1. Time Table for Implementation of Policies during 2008:**



<b>Project Name</b>	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>
<b>First: Conducive Production Environment</b>												
<b>Economic and Financial Policies</b>												
Allocate at least 20% of public expenditure for agricultural and livestock infrastructure				●	—	—	—	●				
Approve and implement partnerships in integrated crop /livestock /processing projects with foreign investors.			●	—	—	—	—	—	—	—	—	●
Provide local Gov. contribution to donor- funded agricultural revival projects			●	—	—	—	—	●				
Upgrade capacity of national banks												
Establish portfolios to finance agriculture			●	—	—	—	—	—	—	—	—	●
Prepare bankable projects for finance by foreign financial institutions			●	—	—	—	—	●				
Seek finance from bilateral sources			●	—	—	—	—	—	—	—	—	●
Political and diplomatic initiatives to ensure financial flows for the revival programme			●	—	—	—	—	—	—	—	—	●
Sustainable and encouraging investment policies			●	—	—	—	—	—	—	—	—	●
Increase insurance coverage with emphasis on agricultural and livestock commodity exports				●	—	—	—	—	—	●		

Allocate a certain percentage of ABS resources as marketing credit for smallholders												
Commitment not to impose any taxes on agricultural and not to impose any levies unless against services												
Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
⇒ Collection Zakat from smallholders at village centers to cover the debts of those who fail to repay												
⇒ Direct Zakat Chamber to determine the quantity of Zakat to be paid by a producer in the rainfed sector on the basis of net returns												
Direct the Zakat Chamber to collect zakat from exporters on the basis of the final annual accounts												
Collect zakat of livestock in production areas at the same time in all states												
Financial Policies												
⇒ Finance infrastructure from Government budget												
⇒ Finance support services at national level												
⇒ Facilitate procedures to allow private sector participate in service provision												
⇒ Finance agricultural operations												
⇒ Increase agricultural credit allocated by ABS for smallholders by at least 100%												
⇒ Adopt the village centre as an instrument to promote the "mobile credit"												
⇒ Direct internal soft loans to the Agric. bank												

⇒ Give priority in finance to producers organized in production and marketing organizations.							●			●				
⇒ Provide short, medium and long term finance to horticultural products and livestock producers.				●										●
⇒ Scale up minimum finance for agric. production				●								●		
⇒ Livestock Bank to developing bank by raising Gov. share to 51% of capital value of the bank				●										●



Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Marketing Policies</b>												
Give priority in finance and implementation for export-oriented projects						●	—	●				
control food safety through SPS measures and adopt HACCP system			●	—	—	—	—	—	—	—	—	●
promote organic production for export						●	—	—	—	—	●	
Implement an effective strategy and contacts, targeting specific markets for commodities with competitive advantage			●	—	—	—	—	—	—	●		
Direct Sudanese diplomatic missions to consider promotion of Sudanese exports as one of their important tasks.			●	—	—	—	—	—	—	—	—	●
Grant maximum incentives provided by the Investment Encouragement Act for investment in storage, refrigerated and dry transport, abattoirs, grading and packaging.			●	—	—	●						
Protect producers and exporters from unfair competition using the privileges granted by the Agreement on Agriculture implemented by WTO.			●	—	—	—	—	●				
<b>Agric. Investment Policies</b>												
Implement a separate investment act for strategic partnerships in agricultural production and processing			●	—	—	—	—	●				
Benefit from Arab investment guarantee organizations to facilitate financing of agricultural development projects			●	—	—	—	—	●				
<b>Institutional Reform</b>												









Restructuring the ministries of the agric. Sector at the federal & state levels												
Complete institutional reform in the Gezira Scheme												

Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Reform existing irrigation schemes and those under establishment			●			●						
Institutional reform of semi-mechanized rain-fed sector			●			●						
<b>Agricultural Legislations</b>												
Commit providers of fertilizers, insecticides and agricultural machinery to following the standard operating procedures which protect environment, public health and food safety			●		●							
Allow exporting of successful agricultural technologies			●	●								
Continue to improve the legal environment which supports and facilitates agricultural activities			●									●
Expedite streamlining national efforts to establish a framework for intellectual property rights according to international standards.			●			●						
			●			●						
Expedite updating and ratification of the agric. Laws which ensure the precise implementation of this law			●			●						
<b>Agricultural Education</b>												
Develop agricultural curricula for high education to meet the needs of the revival programme			●						●			
integrate agricultural and veterinary sciences in the curricula of the comprehensive schools			●			●						
Encourage successful students to enroll in professional and technological agricultural specializations through			●			●						

upgrading their salary scales												
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Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Reduction of Production Cost Policies</b>												
<b>Research Policies</b>												
Set research priorities according to the agricultural revival programme.			●	—	●							
Adopt participatory approach for planning and implementation of research involving beneficiaries and other stakeholders.			●	—	●							
Permit introduction and adaptation of successful technologies on the basis of scientific criteria agreed upon until the procedures concerning Intellectual Property rights are put in place.			●	—	●							
<b>Technology Transfer and Extension Policies</b>												
Use the village as a centre for providing agricultural services and finance			●	—	—	—	—	●				
Earmark 15% of the posts approved annually for employing new agricultural graduates to those coming from the villages chosen as centers.			●	—	—	—	—	●				
Use mechanical harvesting on a large scale									●	—	—	●
<b>Trade and Agricultural Export Policies</b>												
Benefit from the regional partnership resources made available by WTO for East and South Africa and COMESA countries			●	—	—	●						
Cancellation of all levies collected by the states, districts, trade unions and parastatals on commodity exports and inputs.			●	—	●							

Distinguish export promotion projects as strategic projects, with privileges granted by the Investment Encouragement Act.												
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Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Expedite approval of the laws on competition, dumping and organization of foreign trade												
<b>Empowering Women to Participate in Agricultural and Rural Development</b>												
Access women to assets and agricultural services through short term low cost credit												
Build capacity of women to organize producer and service organizations including small scale processing												
<b>Information and Informatics Policies</b>												
Continue development on information systems through collection, analysis and publication to support policy decisions.												
Development of early warning systems on food security												
<b>Agricultural Cooperation Policies</b>												
Strengthen the role of agricultural cooperation as civil society organizations, and review current laws and by-laws to reflect this fact												
Confine the role of the government to capacity building, awareness raising, regulation, research												
<b>Utilization of Idle Capacities in the Agricultural Sector</b>												
Cancel the leases of an reallocate idle investment projects												

Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Agricultural Processing</b>												
⇒ Government financial and technical support to assist small scale household industries to add value			●						●			
⇒ Plan and establish industrial areas for leather industries			●			●						
⇒ Encourage use of composite flour based on results of the research			●					●				
<b>Utilization of Idle Capacities in the Industrial Sector</b>												
Preparation of an emergency programme to utilize idle capacities in the industrial sector			●		●							
<b>Generation of Hydroelectric Power to Reduce Cost of Power Generation from Dams</b>			●									●




## 2. Time Table for Implementation of Programmes and Projects During 2008:

Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Second: Programmes and Projects</b>												
Water Harvest Projects												
Dams and Reservoirs		●	—	—	—	—	—	—	—	—	—	●
Rehabilitation of Khur Abo Habel	●	—	—	—	—	—	—	—	—	—	—	●
Development of Idd El Fersan & Rehaid El Burdi		●	—	—	—	—	—	—	—	—	—	●
Umbayada	●	—	—	—	—	—	—	—	—	—	—	●
Abu Hamra	●	—	—	—	—	—	—	—	—	—	—	●
Irrigation Projects												
Lower Gates of Roseries Dam	●	—	—	—	—	—	—	—	—	—	—	●
Underground Reservoir of Nubian Aquifer				●	—	●						
Rehabilitation of Rahad irrigation Infra.	●	—	—	—	—	—	—	—	—	—	—	●
Rehabilitation of Supplementary Funds in Khashm El Girba					●	—	●		●	—	●	
Using X-ray to develop water resources				●	—	●						
Rehabilitation of Roseries Upper Gates				●	—	●			●	—	●	
Heightening of Roseries Dam				●	—	●		●	—	●		
Rehabilitation of Gezira Infrastructure			●	—	●	—	—	—	—	—	—	●



Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Rehabilitation of Esuki Corporation		●						●		●		
Rehabilitation of Irrigation Infra. in Irrigated Projects		●			●		●					
The Tenth Inspectorate in Rahad				●	●			●	●			
Rehabilitation of Irrigation Pumps		●			●				●			●
Completion of New Halfa Rehabilitation		●	●		●	●			●		●	
Rehabilitation/Regrouping of White Nile Schemes		●										●
Blue Nile Pump Schemes Projects		●										●
Tokar Delta Rehabilitation Project	●											●
East Soba and Esilat Project		●										●
West Soba and Gamuya Projects		●										●
Rehabilitation of Pumps and Irrigation Infra. in Hilalia		●										●
Eastern Nile Basin Projects				●	●							
<b>Rural Roads, Ferries and Barrages</b>												
Rural roads			●									●
Ferries and Bridges			●									●

Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Qualitative change of Producers												
Qualitative change of farmers, pastoralists and agro-processors			●	—	—	—	—	—	—	—	—	●
Training and capacity building in federal and state				●	—	—	—	—	—	—	—	●
Training of agricultural machinery users on mechanization of different operations.				●	—	—	—	—	—	—	—	●
Qualitative change of farmers, pastoralists and agro-processors				●	—	—	—	—	—	—	—	●
Motivation of producers				●	—	●					●	—
development of agricultural management					●	—	—	—	—	—	—	●
Support Services												
The village as a centre for services and agricultural knowledge (500 villages in 2008)				●	—	—	—	—	—	—	—	●
Technology transfer centers (crops)		●	—	●	—	—	●	●	—	—		
Technology transfer centers (livestock)				●	—	—	—	—	—	—	—	●
Rehabilitation of the horticultural sub-sector			●	—	—	●	—	●	—	—	●	—
Agricultural planning, economics and surveys			●	—		●	—		●	—	●	—
Rehabilitation of the crop production infrastructure		●	—	●	—		●	—	—	—	—	●
Agricultural Investment Development Centre			●	—			●	—				

Provision of vaccines											
Development of the National Fishery Centre											



Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Control of epidemics			●									●
Control of poaching			●	●		●		●			●	●
Rehabilitation of quality control labs.		●	●			●	●					
Veterinary clinics		●	●	●	●							
<b>Information and Informatics</b>												
Agricultural census										●		●
Strategic information and studies base			●									●
Planning and field economic surveys			●	●		●	●		●	●	●	●
Research on Blue Nile State								●				●
Household expenditure, consumption and livelihood studies								●				●
<b>Food Security, Poverty Reduction and Rural Development</b>												
National Wheat Programme	●											●
National Rice Project			●	●		●	●	●	●			
Special Programme for Food Security		●			●		●	●	●		●	●
Integrated Information System for Supporting Decision Making in Food Security		●			●		●	●	●		●	●
Risk management and Agricultural Insurance	●	●	●	●	●	●		●	●	●	●	●

<b>Project Name</b>	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>
Regeneration of Systems of Livelihood in Gash	●											●
Blue Nile Development Project		●										●
Development of Irrigated Agriculture (Rahad, Taiba ElKemir, ElHurga)	●											●
Provision of improved seeds to farmers free of charge		●										●
Drought amelioration and food security	●											●
Drought amelioration and food security		●										●
North Kordofan Rural Development	●			●								
South Kordofan Rural Development	●											●
Khor klbob		●										●
Jebal Marra Rural Development Project	●											●
Rural Development in Gedarif State		●										●
Um Agag Agricultural Project		●										●
Food Security in Red Sea State		●										●
Rural Development in Nuba Lake		●										●
Rehabilitation of Basic Infrastructure		●										●
Improvement of Farmers' Income			●			●			●			●

Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Agricultural Marketing and Export Promotion</b>												
Rehabilitation of ginneries			●—●									
Rabak Silo		●—			●		●—					●
Establishment and Rehabilitation of Quarantines and Slaughter Houses				●—								●
Improvement of Production And Marketing of Livestock in Rain-fed Areas			●—									●
Survey and control of diseases hampering exports		●—										●
Rehabilitation of Inspection and Vaccination Centers				●—								●
Establishment of wholesale fruits and vegetables markets with all related services							●—					●
Establishment of wholesale livestock markets							●—					●
Strategic Belt for Livestock Exports				●—								●
<b>Development and Modernization of Agricultural Systems</b>												
Improvement and modernization of agricultural systems in Gezira Scheme	<b>Models</b>					●—						●
Irrigated Pilot Pasture Farm			●—									●
Rain-fed Pilot Pasture Farm												
Zero Tillage Technology in mechanized rainfed sector						●—						●

Agro-forestry Piloting			●				●			●			●
Fish culture and water living organisms													

Project Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Development and Protection of Natural Resources</b>												
Preparation of land use maps		●		●		●			●			
Desertification control programme			●									●
National seeds broadcasting			●		●			●			●	
Natural resources management in West Sudan	●											●
Butana integrated rural development	●		●									
Rehabilitation of the Gum Arabic Belt		●										●
The Green March Project		●										●
National Forests Corporation projects		●	●		●			●				
Afforestation of 5% of the area of the irrigated projects			●									●
<b>Commodity Councils</b>			●									●
<b>Strategic Partnership</b>		●										●
<b>Other Key Projects</b>		●										●



Annex 4  
Legislations and Laws Specific to the  
Executive Programme for Agricultural Revival

**Firstly: Proposals for Initiation and Modification of the Laws of the Ministry of Agriculture and Forestry:**

**A. Proposed Laws:**

1. Proposed Law on Fertilizer and Insecticides for 2003.
2. Proposed Law on Seeds, 2003.
3. Proposed Law on Rural Development, Food Security and Poverty Reduction, 2005.
4. Proposed Law on Special Safeguard, 2005.
5. Proposed Law on Application of Agreement on Genetic Resources of Food and Agriculture.
6. Proposed Law on Agreement on Biodiversity.
7. Proposed Law on Food Safety.
8. Proposed Law on Bio-safety.
9. Proposed Law on Testing of Tractors, Equipment and Agricultural Pesticides, 2003.
10. Proposed Law on National Forests and Renewable Natural Resources.
11. Proposed Law on Jabel Marra Authority for Rural Development, 2008.
12. Proposed Law on Agricultural Quarantine, 2004.
13. Proposed Law on Agricultural Insurance, 2005.

**B. Modification of Laws:**

1. Crop Protect Act
2. Pesticides and National Pest Control, 1994.
3. Plant Diseases Act, 1960.
4. Water Hyacinth Control Act, 1960.
5. Date Palm Seedlings Confiscation Act, 1947.
6. Cotton Act, 1926
7. Locust Eradication Act, 1907.
8. Agricultural Pests Control Act, 1919.
9. Agricultural Co-operatives Act.
10. Farmers' and Pastoralists' Act, 1992.

## **Secondly: Proposals for Initiation and Modification of the Laws of the Ministry of Animal and Fishery Resources:**

### **A. Proposed Laws:**

1. Proposed Law on Livestock Genetic Resources.
2. Proposed Law on Production of Meat and Meat Products.
3. Law on Dairy and Dairy Products.
4. Law on Forages and Feeds from Animal and Plant By-products.
5. Law on Fish and Aquatic Organisms.
6. Law on Protection of Water Catching Areas.
7. Law on Organization of Livestock Markets.
8. Law on Development of Livestock and Fish Exports.
9. Law on Strategic Belt of Livestock Export, 2008.

### **B. Modification of Laws:**

1. Law on contagious Livestock Diseases, 2001.
2. Laws on Veterinary Quarantines for Lives Animals and Meat, 2004.
3. Law on Disease-Free Zone, 1973.
4. Law on Cattle Route and Veterinary Surveillance Points, 1974.
5. Law on Meat Health and Inspection, 1974.
6. Law on Sudanese Hides and Skins, 1954.

### **Thirdly: Land Laws:**

1. Proposed Law on Land Commission.
2. Modification of Civil Transaction Act, 1984.
3. Modification of the Law on Settlement and Registration of Lands, 1925.

### **Fourthly: Other Laws:**

1. Law on Organization and Development of Industry, 2004.
2. Proposed Law on the Support Granted to Revitalize the Industry.
3. Law on Organization of International Trade.
4. Law on Competition and Dumping
5. Law on Accreditation Council
6. Law on Scientific Research
7. Modification of the Law on the Protection of the Environment, 2001.

## Annex 5

### Participants in the Preparation of the Programme Document

#### **The High Committee:**

Under the chairmanship of His Excellency First Vice President. Members included the ministers of the economic sector of the Council of Ministers, researchers, producers, farmers' and pastoralists' trade unions, processors, service providers, investors and civil society organizations.

#### **Committee of Rapporteurs:**

1. Prof. Ahmed Ali Genif (Chairman)
2. Prof. Bakri Musa Ali
3. Dr. Abdel Latif Igeimi
4. Dr. Abdel Razig El Bashir Mohamed

#### **Drafting of the Executive Programme Document:**

1. Prof. Ahmed Ali Genif
2. Prof. Bakri Musa Ali
3. Dr. Yassin Abdeen
4. Dr. Abdel Latif Igeimi
5. Dr. Abdel Razig El Bashir Mohamed
6. Dr. Ali Abdel Razig Lutfi
7. Fafiz Ata El Mannan

#### **Translation:**

Dr. Abdel Razig El Bashir Mohamed

#### **Word Processing:**

Rihab Yassin F. Nimir

