



Agriculture:

Modernising Agriculture to Reduce Poverty

Introduction

Agriculture is the backbone of the Ghanaian economy and a major foreign exchange earner. It contributes about 35% to GDP, employs 55% of the population on a formal and informal basis and contributes about 45% of all export earnings.

With a land area of some 240,000 square kilometres, Ghana produces a variety of crops in its three climatic zones, which range from dry savannah in the north through transitional to wet forest, which run in east-west bands.

Annual rainfall varies between 800mm and 2,400mm, generally decreasing from south to north and from west to east.

The agriculture sector is made up of five major sub sectors – food crops, livestock, fisheries, cocoa and forestry. The aim of the sector is to ensure food security and facilitate the production of agricultural raw materials for industry and agricultural commodities for export.

Agriculture is predominantly practised on small-holder, family-operated farms

using rudimentary technology to produce about 80% of the total output. The production is primarily rain-fed.

Performance of the sector

In spite of its importance, growth has lagged behind other sectors of the economy and has been unpredictable, as most farming is reliant upon rainwater.

Agricultural sector growth has averaged some 4.6 % between 2000 and 2007. It grew by 5.1 % in 2008 and posted a remarkable growth

of 6.2 % in 2009, driven largely on account of good rainfall patterns, good growth in the cocoa sub-sector and by extension of the land under cultivation, suggesting that the sector can indeed be a driver of growth when the conditions are right. The forestry and logging sub-sector grew by 3.5 % while the fishing sub-sector grew by 5.0%.

maize, 115% for plantain, 117% for cocoyam, 214% for cassava to 350 % for yam.

The main food crops grown in the country include cassava, yams, plantains, maize, rice, peanuts, millet and sorghum, among others. Ghana's main export commodities are cocoa and cocoa products, timber and wood products, fish and

include cotton, oil palm, rubber, coconut and sugarcane.

As part of the government's export diversification program, non-traditional export crops have been heavily promoted in Ghana. Pineapple, paw-paw, mango and cashew in particular have received a lot of attention under the export diversification program. These efforts have resulted in an increase in the production and export of the fruits and pineapples in particular.

Cocoa

Cocoa production is one of the cornerstones of Ghana's economy. After gold, cocoa is the second largest foreign exchange earner. The country also prides itself as the second biggest producer of the commodity after its western neighbour, Côte d'Ivoire.



The sector also witnessed a marked improvement in food production in 2009 as a result of various initiatives pursued by the government to revamp the sector. On top of the achievements were a 20 % increase in rice production and 5 % increase in maize production, while sorghum and millet production went up by 20 % each. Groundnuts and cowpea also recorded a 3 % growth rate each.

However, lack of technological change and poor basic infrastructure impede a rapid growth of the sector.

Production

Ghana's agricultural production meets only 50% of domestic cereal and meat needs, 60% of domestic fish consumption and less than 30% of the raw materials needed for agro-based industries.

The level of self-sufficiency in food items varies from about 30% for rice to 92% for

fish products, shea nuts and coffee. Other industrial crops



There are about 250,000 cocoa farmers, each with about five acres of land. In all, about 800,000 people are involved in the cocoa industry.

Cocoa production occurs in the forested areas of the country where rainfall is 1,000 - 1,500 millimeters per year. The crop year begins in October, when purchases of the main crop begin, while the smaller mid-crop cycle starts in July.

Ghana's full season 2008/09 cocoa harvest hit 710,638 tonnes, marking a 4.5% rise over the previous season and the third best performance since 1965. This was achieved as a result of implementation of good policies such as remunerative producer prices (about 70% of the net fob value) and payment of bonuses, effec-

tonnes within the next three years. To this end, interventions such as clearing of weeds, free supply of fertilizer and free spraying of cocoa farms will be intensified to enable farmers increase their yield to meet the target.

The current installed domestic processing capacity is around 343,000 metric tonnes. This is in line with the target of processing 50 % of cocoa beans locally by the year 2010/2011 as a medium term policy.

Industrial crops

The major industrial crops such as cotton, coconut, oil palm and rubber are constrained by unavailability of high yielding planting material, poor agronomic practices and cultivation of small holdings.

clear picture of the situation, the opportunities and constraints and provide some recommendations on the preliminary conditions necessary to revamp the cotton industry.

The Government's objectives in the medium term are to increase the availability of improved planting material, enhance adoption of improved agronomic practices, promote large scale commercial farming and rehabilitate irrigation dams.

Irrigation

Although irrigation is crucial to boosting agriculture, less than 1% of arable land is under irrigation and the poor management of existing systems further limits their effectiveness. Formal public irrigation schemes are operating at about one-third of their design and capacity with low yielding and low cropping intensity because of poor operation and maintenance of irrigation facilities, the latter partly due to inadequate cost recovery. It is therefore no surprise that irrigation has not as yet impacted significantly on Ghana's food production.

The current area under cultivation is 11,000 ha whereas the potential area, including inland valleys, that could be developed for irrigation is estimated at 500,000 ha.

Recognising the importance of irrigation in the economic development of Ghana, Government in 2009 made efforts to develop and improve on existing irrigation facilities, including the rehabilitation of 72 breached dams/dugouts which are now at



tive diseases and pest control exercise, and improving the agronomic practices on cocoa farms.

Ghana Cocoa Board, the state-owned company that purchases and exports cocoa, has projected to increase the country's annual cocoa production to one million metric

In the case of cotton production, government and the key players are facing serious difficulties. The French Development Agency, Agence Française de Développement (AFD), has accepted to support the sector. AFD and the Ministry of Food and Agriculture have agreed to conduct a diagnostic study in order to have a



various stages of completion. Government has also contracted a grant to finance a feasibility study of the Accra Plains Irrigation Project. Detailed designs of 5,000 ha for the first phase of the development of the project have been concluded and the implementation will commence during 2010. The project when completed will be used to cultivate crops such as banana, soya bean, rice, pineapple, mango, maize, groundnut and cowpea. This will help boost agricultural production and contribute to the satisfaction of growing domestic demand for food and raw materials for agro-based industries in the country.

Livestock

Livestock farming is mainly in northern parts of the country (Northern, Upper East and Upper West regions) and the Accra plains.

Cattle, sheep and goats, pigs, and poultry constitute the major types of livestock produced in Ghana. Of these, the poultry industry is the largest and most successful. It is estimated that the livestock population in Ghana is about 30 million heads.

Commercial production of farm animals has grown significantly over the past five years. However, the pro-

duction of meat is insufficient to meet the growing local demand.

The challenges facing the livestock sub-sector include low genetic material of livestock species, poor management practices, inadequate availability of quality feed, low application of good agricultural practices in production, handling and transportation of livestock/livestock products and poor quality of data and monitoring system.

aggregate level of 30% to 80% by the year 2015 and contribute to the reduction of the incidence of poverty among farmers, who are also livestock farmers, from 59% to 30% by the year 2015.

The key strategies are to: focus in improving animal health (using community animal health workers); improve access to quality feed and water; enhance performance of indigenous breeds through a programme of selection; develop commercial poultry as the priority for improving meat supply in the short term; improve access of operators to technology and appropriate financial instruments; advocate fair trade; and advocate an enabling environment for intensive urban and peri-urban livestock farming.

As part of the revitalization effort, the government



National Livestock Policy

The goals of the livestock policy are increasing the supply of meat, animal and dairy products from domestic production at the current

undertook to rehabilitate and restock the six cattle stations at Pong-Tamale, Ejura, Babile, Kintampo, Amrahia and Nungua, but these efforts have yet to bear fruit.

To boost meat production for food in 2010, Government will support selected poultry/livestock farmers, including the youth, with brooded chicks (cockerels) and small ruminants to enhance their capacity to produce. Guinea fowl farmers are also to be supported with incubators to produce keets in the 3 northern regions. In addition there will be a nationwide campaign to vaccinate local poultry, small ruminants and dairy cattle against diseases.

Besides, Government will also levy duties to cut down imports of poultry into the country and to support local production. The target is that Ghana should be able to meet the domestic demand for poultry by the year 2012.

Fish

The importance of the fisheries sector in the socio-economic development of the country cannot be over-emphasised. With a marine coastline of 550 km, the fishing

industry plays a major role in sustainable livelihoods and poverty reduction in several households and communities. The sector is estimated to contribute about 3 % of the nation's gross domestic product (GDP) and 10 % of the Agriculture GDP. For a long time, fish has remained the preferred and cheapest source of animal protein with about 75 % of total annual production being consumed locally.

In spite of the apparent potential of the fishing industry, the sector has recorded consistent decline in terms of output over the years owing to climate change, overfishing and illegal fishing methods. Fish landing was estimated at about 800,000 metric tonnes per annum in the past but this has fallen to an annual fish catch of 400,000 metric tonnes currently. Ghana, the fourth largest consumer of fish in Africa, now has to import fish to meet demand.

The fishing industry is based on fishery resources from the marine and to a lesser extent, inland or freshwater fisheries and aquaculture. The Volta Lake, reservoirs, fish ponds and coastal lagoons are the main sources of inland or freshwater fish.

Marine fishing contributes over 80 per cent of the total fish catch. The fisheries activities in the marine sector range from artisanal to industrial, exploiting both pelagic and demersal fish resources up to 200 nautical miles (EEZ). The small-scale artisanal marine fishing communities generally contribute about 30 per cent of the traditional sector landings. About 1.5 million people depend on this sub-sector, directly as fishermen and indirectly through fish processing and trade.

Fish and fish products, including shrimps, tuna loins and canned tuna contribute to about 20 % of the total



non-traditional exports of Ghana. The country earns over US\$80 million annually through fish exports.

In a bid to increase production of fish for consumption, Government will construct two fishing harbours, twelve fish landing sites and cold-stores in the main fishing towns along the coast. The Government is also in the process of securing two fishing patrol vessels, for the monitoring, control and surveillance (MCS) division of the fisheries commission, to enable them perform their duties effectively in dealing with illegal fishing methods.

Timber

About one-third of Ghana's land is forests and woodlands

in 2008. That itself was some US\$50 million above the 2007 figure. Timber is the fourth foreign exchange earner of Ghana after gold, cocoa and tourism. The exports are mainly to the European Union, US, Asia and Middle East.

The Timber Industry Development Division (TIDD) of the Forestry Commission works in support of the logging and wood processing sector. It encourages a skilled and progressive industry based on the sustainable use of forests and providing a source of secure employment, income, and career and skills development.

TIDD is committed to ensuring that Ghana will maintain and increase its wood resource through the

ber of the very many tree species which occur in Ghana's natural forest in order to take the pressure off the better known traditional species.

TIDD has also a key role in helping industry to create more value through additional processing. The aim is to provide machined and shaped timber as well as components and finished products. Significant increases have been noticed in plywood, sliced veneer and mouldings. A total contract volume of 129,580 cubic metres of wood products and 5,388 pieces of furniture were processed and approved during 2009.

Management of the sector & Development Strategy

The Ministry of Food and Agriculture (MOFA) is the Ministry charged with the development and growth of agriculture in the country with the exception of the Cocoa-Coffee and Forestry sector. MOFA's primary role is the formulation of appropriate agricultural policies, planning and co-ordination, as well as monitoring and evaluation within the overall national economic development.

Government's agriculture development strategy is premised on the knowledge that agriculture has significant potential to grow beyond the levels experienced in recent years; that the high agriculture growth can only materialize through modernization and diversification, driven by public investment and productivity; and that modernizing agriculture can change the face of rural Ghana and poverty.

The overall objective of the agriculture moderniza-



and the timber sub-sector is crucial to the growth of the agricultural sector. Within the high forest zone there are 216 Forest Reserves legally demarcated and controlled covering about 17,000 km².

Earnings from timber in 2009 are estimated at US\$400 million from about US\$300

sustainable management of its Forest Reserves, the establishment of industrial wood plantations, the evolution of a sophisticated bamboo industry, and the commitment of local communities to the protection and responsible use of their forested lands. TIDD is also encouraging the industry to use a greater num-

tion is to significantly increase the scale of production and productivity, enhance food security, create employment opportunities, and cut down on the use of foreign exchange for food imports.

The implementation of the modernisation of agriculture policy will be accelerated through the implementation of the Youth in Modern Agriculture Development Programme. Government will take measures to encourage participating youth to adopt appropriate, accessible affordable and economically beneficial modern and yield increasing technologies.

Challenges

Despite the efforts at improving agriculture in Ghana, the sector faces a number of challenges. Among them are:

- Inadequate supply and distribution of inputs;
- Inadequate storage and marketing facilities;
- Poor infrastructure including lack of irrigation development;
- High transport cost;
- Land acquisition and land tenure issues;
- Low synergy among sub-sectors of agriculture hence no opportunities for new industries;

Strengths and Opportunities

Despite the challenges, the sector has strengths and opportunities which have been taken into consideration in adopting strategies for developing the sector. The major strengths, according to the Ministry of Agriculture are:

- Diversity of commodities due to diverse agro-ecological

enhance food security and increase agricultural trade.

- A well-established agricultural research system, which has been successful in crop improvement (eg cassava, maize, cowpea).
- Relative proximity to Europe as an export destination compared to competitors in southern Africa and South America.
- A flourishing horticultural sector with a knowledgeable private sector.

The Ministry also believes there are opportunities mainly for expanding agricultural trade. These are:

- New foreign direct investment in horticultural and industrial production.
- Expanding international trade in high value horticulture commodities, in which the country has comparative advantages.
- Initiatives to open up ECOWAS sub-regional market.
- Preferential access to international market through bilateral agreements such as the US African Growth and Opportunity Act (AGOA) and the EU-ACP countries' economic partnership.

Conclusion

In order to achieve long-term agricultural growth, the Government needs to sustain and scale up both traditional and non-traditional agricultural export sectors. It also needs to boost productivity in food to meet rising local demand and develop a viable local agro-industry. That way, the overall contribution of agriculture to GDP will increase tremendously. ■



- Production is predominantly rain-fed;
- Sector dominated by small-holder farmers (80% of the total output);
- Low level of technology;
- High post harvest losses;
- Low value addition;
- Insufficient access to credit;

zones. This allows for easy diversification of farm production systems.

- Well-endowed network of water bodies which can be tapped for irrigation.
- Comparative advantage in the production of roots and tubers can be built on to