



**REPUBLICA DE GUINEA ECUATORIAL
REPUBLICQUE DE GUINEE EQUATORIALE
Ministerio de Agricultura y Bosques
Ministry of Agriculture and Forests**



**POLITIQUE DE DEVELOPPEMENT DES SECTEURS NON PETROLIERS
PROGRAMME DE DIVERSIFICATION ECONOMIQUE
Sous Secteurs Agricultures, Élevage et PME/PMI
Elaboration des Projets Prioritaires
Development Policy of the Non-Oil Sectors
Economic Diversification Program
Agriculture, Livestock, and SMEs/SMIs**

**THE GREEN REVOLUTION IN EQUATORIAL GUINEA: A NEW
RENAISSANCE for the AGRICULTURE SECTOR**

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The GREEN REVOLUTION IN EQUATORIAL GUINEA: A NEW RENAISSANCE for the AGRICULTURE SECTOR.

Introduction

The Minister of State and Minister of Agriculture and Forests, H.E. Teodoro NGUEMA OBIANG MANGUE, in face of the degrading agriculture sector of his country, has decided to take a bold approach in revamping the sector and making the Equatorial Guinea self sufficient in food production in 3/4 years. Before launching this daunting and far-reaching Agricultural Program, the Minister has requested his Department to undertake a sound and non complacent analysis of the sector.

As presented below, the Department decided to start with an analysis of the world agriculture, cognizant that Equatorial Guinea is an integral part of that global system and must compete within that framework, and take that environment into account, if it wants to achieve self-sufficiency with efficiency and sustainability. Already, in his concluding speech at the "Second National Economic Development Program, Horizon 2020" held in Bata Equatorial Guinea in November 2007, H.E. the President of the Republic of Equatorial Guinea, stated as follows: "Today, November 14, 2007, in adopting this Development Program, Equatorial Guinea, intend to accelerate with great speed, the trend of its development, with seriousness and necessary master ship, in order to achieve its final goal in 2020; if not completely as a Developed Country, but, at least, as an Emerging Country. This is our Dream, and I assume it to also be that of all our compatriots, as it is in the benefit of the whole population.... In fact, the Development Plan underlines clearly the main importance of agriculture, livestock and fishery products, in addressing the diversification of the economic productivity and achieving food self sufficiency.....The massive increase in a diversified agricultural, livestock, and fishery production could lead us immediately to industrialization and better conservation of those products; hence eliminating our excessive dependence on food imports.....Honestly, we believe that, the solution cannot be improvised. It is time we invest part of our oil revenue in the development of other productive sectors, with higher return, to avoid the danger of post oil era". The President added that: " Within this framework, considering the potential of the resources of these three sub-sectors, I urge the Government to take the necessary measures and launch a comprehensive diversification program of agriculture, livestock, fishery and other sea productions".

Within the above framework, the Ministry of Agriculture decided to approach the problem in three interrelated steps:

- 1- A brief review of the world food situation;
- 2- A concise but comprehensive presentation of the National Economic Situation with emphasis on the Agriculture situation;
- 3- The presentation of the far reaching program undertaken by the Ministry of Agriculture and Forest, known as [“The Green Revolution ,A New Renaissance of the Agriculture Sector in Equatorial Guinea”](#).

World Food Situation: An Overview.

For most of the past 50 years food production has outpaced rising demand. World population has doubled since World War II, but food production has tripled. In the developing world the calories available per person increased from an average of 1,925 calories in 1961 to 2,540 calories in 1992. World food production has expanded since the early 1960s due mainly to the Green Revolution—adoption of crop rotation, the mass production and use of petroleum-based fertilizers and chemical pesticides, expanded irrigation, and the introduction of genetically superior, disease-resistant cultivars (cultivated crops).

The trend may now be changing for the worse, however. Since about 1990 global grain production has risen only slightly and, despite slower rates of population growth, grain supplies per capita have fallen. In the worst case, Africa now produces nearly 30% less food per person than it did in 1967. The reasons for the change in the trend include not only rapid population growth on the demand side, but also higher population densities in traditional agricultural areas, fragmentation of small farmsteads, poor land management including deforestation, and inappropriate agricultural and economic policies, all of which suppress supply.

With one-third of world population lacking food security now, FAO estimates that world food production would have to double to provide food security for the 8 billion people projected as world population in 2025. By 2050, when world population is projected to be over 9 billion, the situation would be even more challenging. At current levels of consumption, without allowing for additional imports of food, Africa would have to increase food production by 300% to provide minimally adequate diets for the 2 billion people projected in 2050; Latin America would have to increase food production by 80% to feed a projected 810 million people; and Asia's food production would have to grow by 70% to feed the 5.4 billion people projected. Even North America would have to increase food production by 30% to feed a projected 384 million people in 2050.

Rapid population growth not only pushes up demand for food but may also be starting to diminish supply as well. As people try to obtain higher yields from heavily used natural resources, soil loss worsens, fresh water becomes scarcer, and pollution increases. As a result the developing world's (especially Africa's) capacity to expand food production may well be shrinking, not expanding.

While food is abundant in many areas, many millions of people in developing countries are undernourished. Each year about 18 million people, mostly children, die from starvation, malnutrition, and related causes. An estimated two billion people suffer from malnutrition and dietary deficiencies; according to FAO, some 840 million of them are chronically malnourished. In sub-Saharan Africa as many

as 70% of all women are anaemic.

About 200 million children under age five—40% of all children of this age in the developing world—lack sufficient nutrition to lead fully active lives. One indicator of chronic malnutrition among children is the percentage who are stunted—that is, short for their age compared with international standards set by the World Health Organization (WHO). Stunting among children ages 3 months to 3 years varies widely among countries, but at least one child in every three was stunted in over 40% of countries surveyed by the Demographic and Health Surveys between 1987 and 1996.

Recent projections by the International Food Policy Research Institute (IFPRI) indicate that child hunger and malnutrition are not likely to be reduced much over the course of the next several decades. According to IFPRI, 150 million children under the age of six will still be malnourished in 2020, just 20% fewer than in 1993. In Africa the number of malnourished children is expected to increase by 45% between 1993 and 2020, reaching 40 million.

IFPRI projects that by 2020 nearly 70% of the people suffering from food insecurity will live in sub-Saharan Africa and South Asia. By 2020 every third person in sub-Saharan Africa is likely to lack food security, every eighth person in South Asia, and every 20th person in East Asia.

As they have throughout history, famines periodically kill millions of the world's poorest people. In 1974, for example, Bangladesh was hit by famine. While food remained available in many districts, it did not reach poor farmers who had lost their crops to widespread flooding. With their harvests ruined, and lacking cash to buy food, many starved.

The households most vulnerable to hunger and its consequences are large, poor families in rural areas and those in urban squatter settlements. Because poor families must spend most of their incomes just to eat, little remains for education, health care, sanitation, or housing. Often, villagers say that they cannot afford to feed large families and provide a decent life for themselves or their children. It is difficult to escape from this cycle of poverty. Many rural people say that, if they had known about and had used family planning when they were just entering their reproductive years, they would have had fewer.

Seasonal food shortages threaten the health and well-being of many subsistence farmers and their families. To survive, many farmers must move temporarily to towns and cities, looking for wage employment, or else work as farm laborers for wealthier land owners. In hard times subsistence farmers may even have to sell some of their land to buy food and pay their debts. If they cannot buy back their land in better times, they must struggle to live off smaller and smaller parcels of land. Some lose all their land.

Since the early 1980s FAO has issued yearly reports listing the world's low-income, food-deficit countries. In 1996 there were 82 such countries, half of them in Africa. In 2009, this figure was still 78, with more than half from Africa. By definition, these countries have a per capita gross national product (GNP) of US\$1,345 or less and have had a net deficit in grain trade over the preceding five years.

The situation could grow worse for food-deficit countries. In many of them, population growth is among the most rapid in the world, and most face serious constraints to increasing agricultural production.

In poor countries, particularly in Sub Saharan Africa, but also elsewhere, limits on natural resources and poor agricultural practices make it difficult to meet food needs, both now and in the future. Assuring food security over the long term depends on making agricultural production environmentally sustainable.

Sustainable agriculture, as defined by FAO, means agriculture that conserves land, water, and plant and animal genetic resources, does not degrade the environment, and is economically viable and socially acceptable. Thus sustainable agriculture manages and uses natural resources to meet people's needs both now and in the future.

In some countries, however, environmentally destructive farming and fishing practices and poor conservation and resource management are limiting the productivity of natural resources even as population growth demands more. Because the costs of poor environmental practices are rarely taken into account, they are often given too little weight in policy decisions. It is clear that, if food production, water supply, and other ecosystem services continue to be undervalued and therefore overexploited, the impact on human welfare could become enormous, they warn.

Among the most serious constraints to achieving sustainable agriculture and food security in the face of population growth are: shortages of arable land, degradation of land resources, loss of agricultural land due to urbanization, water shortages and pollution, irrigation problems, collapsing fisheries, disappearing genetic diversity, and climate change.

However, even with adequate global supplies, recent studies have all projected serious food problems in developing countries, primarily Sub-Saharan Africa and South Asia. Food insecurity will grow significantly in these regions, resulting either in higher food aid requirements or more serious malnutrition. Globally, it is projected that both the absolute number and the proportion to the population suffering from under-nutrition will decrease, although FAO (1995) projected that by the end of 2010 more than 800 million people will still lack food security.

We know that agricultural production is a biological process which depends on the natural resource base, especially soil and water, and on favourable climatic conditions. While the world's supply of land and water is finite, its capacity for supporting agricultural production can be modified over time through investment. The productivity of land (or the degree to which physical land and water availability constrains agricultural output) can be affected by technology (the substitution of knowledge-based inputs for natural resources). Much of the disagreement between the optimists and the pessimists is fundamentally about the rate at which knowledge-based inputs can be developed, and the degree to which natural resources can be replaced by knowledge-based inputs.

As agriculture has become more dependent on technology, questions have been raised about the ability of science to provide a sufficient stream of new technology to keep pace with increasing demands for food especially in poor developing countries. In fact, a related, but fundamentally different, concern is raised with respect to the ability of new technology to provide food security in the low-income, food-deficit developing countries of the world. This concern has two dimensions. First, the more impoverished developing countries are poorly prepared, in terms of human capital and physical and institutional infrastructure, to support the adoption and use of modern technology. Thus, technology may not be able to increase domestic supply in these countries to keep pace with rapidly growing populations. Second, and possibly more important, is the concern that poverty, both rural and urban, cannot be eliminated by technology alone. Lack of purchasing power may mean that large segments of the population have no access to food supplies, either domestic or imported, even though these may be increasing.

It is known that food and agricultural policies (both internal and international) constitute the second major determinant of the long-term outlook for world food supplies. A policy environment that distorts prices and other incentives for producers and consumers away from the true social values of natural resources (including the environment) and other inputs leads to inefficient production (use of resources) and raises further concern about the long-term future of the global food supply.

Food and agricultural policies, including trade policies, are almost universally adopted for good and noble reasons. However, governments often fail to understand that policies have multiple effects which are often inconsistent with, and sometimes contrary to, the original policy objective. This has led to a global

policy environment which is badly distorted, and has contributed to a global agriculture that was once referred to by Professor D. Gale Johnson as being "in disarray".

The tendency to, sometimes, emphasize misguided agricultural policies should not be taken to imply that all government intervention is bad, and that "just leaving it to the market" would lead to a sustainable solution to the long-term food supply-demand problem, especially in developing countries. There are three supply problems that are not handled satisfactorily by markets:

- Private costs and returns as captured in market prices are not always consistent with social costs and returns, leading to socially inefficient use of resources and the environment. (Taxes and subsidies or regulations are necessary to correct for this).
- Markets do not always adequately value the long-term consequences of resource use and misuse, and thus may not lead to substitution away from scarce resources before irreparable harm has been done. (Here, also taxes and subsidies or regulations may be needed). It is especially in this latter case that there is some reason for caution in asserting that technology and the market (with limited help from policy-makers) can take care of long-term growth in the global demand for food and fiber. We don't really know the degree to which knowledge based inputs (technology) can be substituted for natural resources and environmental quality.
- The resources affected by developed countries to subsidize their agriculture has distorted the agricultural market and rendered developing countries production not competitive at world market level despite the Uruguay Round of the GATT negotiations, particularly on agriculture, tropical products, and intellectual property, which have never been implemented efficiently to reduce distortions and resource inefficiency in the market place.

Whatever optimism one can derive from the above brief analysis cannot be considered to be automatic, and countries must not become complacent. Growth in demand as a consequence of population needs and income growth will place increasing pressure on the global natural resource base and the environment. Low incomes for large numbers of people will continue to leave an important gap between the "need" for food and "effective demand" for food. In order to meet the challenge of providing greater global food security over the next two or three decades, without detracting from the capacity to meet the same challenge in the even more distant future, we must:

- Increase investment in agricultural sector and research, especially in less

industrialized and developing countries, to ensure a continuing stream of new and appropriate technology;

- Adopt policy frameworks that are conducive to production and consumption decisions that make efficient use of resources and the environment, and provide incentives for future investment especially in the agricultural sector.
- Continue to remove barriers to trade in food and agricultural commodities, inputs and technology between countries, so as to achieve maximum efficiency in use of global productive capacity, and maximum flexibility to adjust to shocks in supply and demand occurring in individual countries; *and*
- Stimulate more rapid economic development in poor countries, so as to eliminate the root cause of food insecurity, namely, poverty.

Generalities on the Country

Introduction

Equatorial Guinea, situated in the Gulf of Guinea, is a country of 28,000 km² with a population estimated at about 1.1 million inhabitants in 2007, projected to be around 1.23 million in 2009; and consists of several geographically distinct areas. Rio Muni, the mainland region, accounts for approximately 85 percent of the land area and 80 percent of the total population.



Republica de Guinea Ecuatorial; **Republic of Equatorial Guinea** (former: Spanish Guinea) is located in Central Africa region.

Its total area: 28,051 sq. Km split between insular components - **Islands of Bioko**, (former Fernando Po), Pigalu, Elobey Grande, Elobey Chico Annobon, Corisco - and continental mainland territory **Bata**: (former Rio Muni - accounting for 85% of the total area). The two parts are separated by vast expanses of sea,

Neighbouring countries: **Cameroon** to the north of mainland territory (over 209 km), **Gabon** to the east and south of mainland territory (over 370 km), and the Atlantic Ocean to the west.

(**Coastline:** 148 km for the mainland territory) .

Maritime frontiers with **Nigeria**, **Cameroon** around the Island of Bioko.

Population: 1,230,060 (2009 est.) - **growth rate** of 2.5% (2007 est.)

Capital-City: Malabo (on the north coast of Bioko Island)

Independence : October 12, 1968

National holiday: Independence Day, October 12

New constitution November 17, 1991

The rest of the country includes the island of Bioko, which is the site of the capital city, Malabo, and five additional small islands in the Gulf of Guinea. Oil production began in 1992, with a production of 6,000 barrels a day, when an independent oil company, Walter International, started operations in the Alba field, situated 36 kilometres off the coast of Bioko; the larger Zafiro field, operated by Mobil Oil, came on stream in August 1996. Petroleum output average 83,000 barrels per day in 1988 representing more than 60 percent of GDP and reached a milestone of 500,000 barrels a day in 2006, about 90 percent of GDP.

Since Adam Smith and David Ricardo, there has been a belief that natural resources are “a blessing”; therefore, countries richly endowed with natural resources have an advantage over countries that are not. Natural resource endowments have helped many countries (Norway, Malaysia, Botswana, Finland and Indonesia) to grow and diversify, in part by providing a basis for developing associated technologies and capital goods industries.

The abundance of natural resources also carries a paradox that has inspired innumerable studies of mineral-rich countries in the developing world. Since the 1970s, they have consistently underperformed their mineral-poor counterparts on a variety of economic performance, good governance and income equality: this phenomenon has come to be known as the resource curse. The “resource curse” is the phenomena whereby a country with an export-driven, natural resources sector, generating large revenues for government, leads paradoxically to economic stagnation and political instability. There is considerable evidence that non-renewable natural resource revenues, especially windfall can, if not properly managed, adversely affect economic growth and poverty reduction. The wise and prudent economic policy championed by President Obiang Nguema Mbasogo has helped the country avoid this trap.

The large-scale production of hydrocarbon in Equatorial Guinea has set the stage for a significant and dynamic structural transformation of its economy. The objective of the new “National Economic Development Plan” NDP in short, adopted at the “Second National Economic Conference “Horizon 2020” in November 2007”, has proposed a sound medium and long-term strategy for managing the country’s rapidly rising oil wealth. It ensures that the large oil endowment relatively to the size of the population is being translated into economic opportunities and benefices for the overall economy and the future generation. The new National Economic Development Plan emphasizes the diversification of the economic base, with agriculture as the cornerstone of economic diversification away from the oil sector.

The Plan also emphasizes the need for an efficient management of oil wealth for a sustained poverty reduction. The National Economic Development Plan addresses the public finance management (PFM) weaknesses and governance, and underscores the reforms needed, if the country is to take advantage of its unique opportunity to use the non-renewable oil wealth to foster economic structural transformation and achieve sustained broad-based growth and poverty reduction (education, health and infrastructure).

Recent Economic Developments

Equatorial Guinea's economic developments in the 1990s were dominated by the coming on stream of important oil fields in 1996; breaking with a long period of economic stagnation, real GDP growth averaged 9.0 percent a year in 1992-1995, rose to 32 percent in 1996 and 74 percent in 1997 and was about 39.0 percent in 1999. Non-oil GDP grew by 10.5 percent on average in 1994-97 but remained flat in 1998 because of a downturn in timber output. Following the initial surge in prices in the wake of the devaluation, inflation fell to 4.7 percent in 1996 on a year-end basis and 3.8% in 1997.

Due to the development of the important Zafiro offshore oil field, investment rebounded, averaging 79 percent of GDP in 1994-98, while the national savings rate remained at 12 percent of GDP on average. In this context, the external current account deficit increased sharply from 56 percent of GDP to 103.5 percent in 1996 and 82 percent in 1998.

Macroeconomic developments continued to be dominated by the hydrocarbon sector, with oil and gas accounting for about 90 percent of GDP, 98 percent of exports and over 90 percent of government revenues. Real GDP grew by about 34 percent in 2004, driven by the sharp expansion in hydrocarbon production. Non-oil GDP increased by about 13 percent, owing to continued strong performance in the construction, infrastructure and service sectors stimulated by government spending. In 2005 due to a slowdown in hydrocarbon production, the overall GDP growth decelerated sharply. Large public infrastructure investment and private housing construction continued to be the main sources of growth in the non-oil GDP.

The real effective exchange rate of the CFA franc calculated for Equatorial Guinea continued to appreciate during 2005. This pattern largely reflected the appreciation vis-à-vis the U.S. dollar and the persistent large inflation differential with the major trading partner countries: in fact these are evidences of what is called "The Dutch Disease". The appreciation of the real exchange rate for Equatorial Guinea was the largest in the CEMAC region, reflecting the country's

position as the largest oil exporter and recipient of foreign direct investment relative to GDP.

The traditional exports stagnated during the last few years; because producers' profits were adversely affected by the nominal appreciation of the CFA franc vis-à-vis the U.S. dollar. However, another crucial underlying factor for stagnation in traditional exports was the loss of immigrant farm labor, which was exacerbated by the abandonment of the farms in search of more lucrative employment in the oil and related sectors and, the poor yields of aged plantations.

The traditional export sectors, which have always been in difficulty, given the recurrent shortage of labour, is further affected by the real exchange rate appreciation.

This is the consequence of favourable terms of trade developments, particularly world oil prices and other fundamentals, such as the strong overall fiscal position, which itself is good for the overall economy; given the current structure of Equatorial Guinea economy. The appreciation of the real exchange rate is likely to accelerate the shifting of production inputs (capital and labour - resource movement effect). The Dutch Disease, by reallocating resource may be doing what the government would have been otherwise reluctant to do, therefore facilitating the transformational process of the economy.

Despite the enormous resources derived from oil exports, which have increased the per capita GDP from US\$ 346 in 1995 to more than US\$ 11,000 estimated in 2007, Equatorial Guinea has not yet been able to, significantly improve living conditions of the majority of the population. Sixty-six percent of the population still does not have access to potable water and the illiteracy rate stands at 60 percent. Infant mortality is about 97/1,000. The 2005 UNDP Human Development Index ranked the country 121st over 177 countries for which the index has been calculated. This poor performance reflects the absence of a comprehensive development and poverty reduction framework as well as poor human resource capacity, which impedes the translation of the main policy objectives of the government into a set of budget priorities and expenditures. It is expected that the newly approved National Economic Development Plan, derived from the Second National Economic Conference "Horizon 2020" adopted in Bata in November 2007, would go a long way in correcting these shortcomings.

Considering the pattern of EQG traditional agriculture and export sectors before the coming on stream of important oil fields in 1996, the sector was already in decline despite the government's efforts. Cocoa, coffee and timber have traditionally been the country's main source of income. During the early period of independence, Equatorial Guinea experienced a drastic economic decline; GDP per

capita in current terms fell sharply, from US\$ 260 in 1970 to about US\$ 170 in 1979, mainly because of the severe decline of the country's agricultural production. As already mentioned the cocoa sector has been deficient, long before the coming on stream of important oil field and subsequent oil-revenues. Cocoa exports fell from nearly 40,000 tons in 1968 to less than 20,000 tons at the beginning of the 1970s, following the departure of the foreign plantation owners and to about 7,000 tons a year after the exodus of some 30,000-40,000 Nigerian contract workers in the mid-1970s. In 2007, the cocoa exports are estimated to be less than 2,000 tons. Decline in the other agricultural sectors was equally striking; timber production declined from 360,000 cubic meters in 1968 to an annual average of 6,000 cubic meters in the late 1970s, and coffee and palm oil production virtually disappeared. Since then the sector has barely recovered, on the contrary, the labour's shortage remains persistent combined with the real effective exchange rate appreciation and the magnitude of oil resource, the very small traditional export sector seems not to be viable.

The authorities are aware that it is critically important to reorient their resources and development efforts where the country could have proven comparative advantage; for example agriculture, fishery, tourism and to develop other export niches and sectors of the economy which can generate as much as foreign exchange earnings than the traditional export sector. Food constitutes by far the largest single item of household consumption in general. Oil proceeds must be invested in raising the productivity of farmers by financing improved seed variety for local production to support the transition from the traditional agricultural export sector to increase local food production. The tertiary sector globally needs the government's attention toward a service-based economy supported by oil-revenues during the transitional period. This backdrop does not mean that the manufacturing sector should not exist on the contrary, the new economy in the making will demand a different type of industries framed on the agricultural base, and manufacturing alongside the service based economy. The traditional export sector may eventually disappear due to the necessary ongoing reallocation of resources within the economy. The sector could then be substituted by the emergence of an efficient and competitive food production sector to warrant food security and limit the dependency on imported foods, which now represents more than 80% of the national food consumption.

In addition, Equatorial Guinea is currently the only Sub-Sahara African oil producing country where oil revenue clearly exceeds the country's absorptive capacity and where sizable foreign assets have been accumulated. The widespread poverty and low human indicators in Equatorial Guinea also argue for upgrading domestic infrastructure and increasing public services so as to improve the quality

and productivity of physical and human capital. Investment in financial assets would build the reserves needed to; gradually increase capital investment as absorptive capacity improves. The current fiscal rule, that the government is trying to follow, is to use non-oil revenue to finance current expenditures and oil revenue to finance capital expenditure, and to save what is left: this rule is wise and prudent.

The development of livestock in Equatorial Guinea is practiced within two distinct systems. The first, most widespread, relates to the traditional breeding, especially smaller livestock (goats, ovine, porcine, poultry, sheep) by farmers at the village level. The breeding system is just for subsistence and its serenity is jeopardized by the lack of appropriate workers, of suitable space for the pastures, of shelter and of veterinary services (lack of appropriate veterinarian products to take care of trypanosomiasis affecting ruminants). The second system is the practice of modern and intensive bovine breeding. This is done by very few private companies on an experimental basis in Moka, south of the island of Bioko. Meat consumption per capita from national production is very low and the consumption of meat and meat products is mainly met by imports.

The national production of meat does not cover the per capita consumption level per year and is by far lower than the minimum estimated at 18,25kg. The additional meat consumption of the population is met by imports of live animals from neighbouring countries, and by hunting of wild animals such as: small antelopes, porcupines, pangolins, etc.

The development of the livestock in Equatorial Guinea would also suffer from: the low purchasing power of the rural population, the deficiency in technical and veterinarian services, the lack of veterinarian products and disease control. The basic infrastructures are degraded. In addition, basic information for the development of livestock sub- sector is not reliable, and do not allow a rigorous planning for the revival of the sub-sector. However, Equatorial Guinea has the pastoral resources for the development of the livestock and the revival of the sub-sector deserves the attention of the authorities at the Highest Level.

The above analysis undertaken by the authorities, has shaped the vision of the President of the Republic for the economic and social development of his country; vision embodied in the new “National Economic Development Plan” NDP in short, adopted at the “Second National Economic Conference “Horizon 2020” in November 2007”

Oil has brought great wealth and growth to the Equatoguinean economy. Real GDP is estimated to have expanded by about 6 percent in 2009. However, with crude oil

production on the decline and still-large development needs, preparations for the post-oil period has begun.

The Country's policies can be summarized as follows.

- 1) Guided by the National Development Plan 2020, policies aim to build up basic infrastructure in support of improved social welfare and greater diversification.
- 2) There is increasing recognition of the need to increase government savings over the medium term, but spending commitments reduce the scope for near-term adjustment.
- 3) Efforts to strengthen public financial management are being stepped up, through collaboration with the international community.
- 4) Collaboration with banks on financing modalities for SMEs is high in the agenda; while support for financial sector development at the regional level continues.
- 5) The role of government in economic diversification is that of facilitator. However, in the medium term, it appears necessary to fill the gaps left by infant private sector.

The medium-term outlook is clouded by the onset of declining hydrocarbon production but the nascent non-oil sector, is promising. The authorities expect robust growth in the small non-hydrocarbon sector, as investments in agriculture sub-sector, in basic infrastructure begin to bear fruit and new public investments support continued construction activity. Transportation is projected to grow steadily (ports, roads), with the hosting of two official regional events providing an additional boost over the next few years. However, activity will increasingly need to be driven by private sector activity, which depends on the ability to strengthen productivity and improve the business climate.

Economic diversification and private sector-led growth.

With hydrocarbon production expected to taper off, Equatorial Guinea is advancing other sources of value added if development is to be sustained. The Authorities are convinced that successful diversification requires strong human capital, financial intermediation, and an enabling business environment.

In one of his speeches in 2009, the Minister of State, Minister of Agriculture and Forest, talking about his country's economic diversification program, emphasized that: "The need for economic diversification is driven by a need to reduce the high dependency of the country on the income from a single commodities such as fossil fuels. This dependency exacerbates the vulnerability of Equatorial Guinea to the

adverse effects of policies and measures taken at the international level to respond to climate change. Sustainable development, he stated, is not a one-size-fits-all concept and needs to be defined in the context of each national economy and according to particular circumstances and priorities. As such, the pursuit of economic diversification in any country needs to be carried out according to a country's driven agenda".

Although there is no common approach to economic diversification, the Minister of State emphasized that; "Basic measures to foster a favorable investment climate are helpful, including efficient administration, the rule of law, a stable macroeconomic environment, efficient and effective infrastructure and manageable political risks. Other prerequisites for economic diversification, he continued, are sustained efforts to improve the educational infrastructure, involvement of the private sector, and the need for governments to provide incentives and form partnerships at national and sectoral levels to bring together different types of expertise".

The Minister of State further added that: "Economic diversification involves both local and global aspects: local in that it should be tailored to local circumstances, but global when national economies are highly affected by high fluctuations in volatile international markets, for which countries have to find ways to be resilient. At this time, we are aware, the Minister of State underlined, that the economic options available are often limited to tourism, agriculture and fisheries, all of which are vulnerable to climate change. In such cases, economic diversification and sustainable development will involve trade-offs based on comparative advantages. These considerations have dictated the general framework within which the Government of Equatorial Guinea has elaborated its Economic Diversification Program, he stated".

He noted that "sustainable development strengthens adaptive capacity and safeguards the long-term prospects of vulnerable economies such as that of Equatorial Guinea, in the face of depleting natural resources. He pursued further that, economic diversification is only one aspect of sustainable development which enables the consideration of broader issues such as reducing poverty, improving technologies, increasing employment and ensuring the provision of ecosystem services within the framework of a well conceived eco-tourism program".

Guided by the framework in the National Development Program Horizon 2020 "NDP", Equatorial Guinea aims to graduate to emerging country status by 2020. In

view of the exhaustible nature of oil resources, sustained growth would be achieved through economic diversification. In the current phase (2008–12), oil wealth is being used to build up basic infrastructure and diversify the economy towards non oil sector. Medium to Longer-term policies will aim to strengthen the business climate and foster identified sectors of potential growth and employment creation. Current business climate indicators point to a wide-ranging structural reform agenda.

In recognition of the important role to be played by small- and medium size enterprises (SMEs), the authorities are beginning to work with the banking sector on improving access to financing, including the creation of a credit fund (i.e., a long-term government deposit) which banks could loan out at concessional rates, a guarantee fund, or a direct interest rate subsidy.

More broadly, the authorities support regional initiatives to strengthen financial sector development. Improvements over the past year include real-time interbank clearance and ATM machines at the individual bank level and even at airports. The fiber-optic cable to the mainland should be operational by year's end, allowing faster and more reliable real-time information transfer from the island. Work is also ongoing on introducing an ATM network, use of credit cards, and a government debt market to facilitate liquidity management.

Outside of the financial sector, the authorities' diversification strategy envisions the government facilitating, but not competing with, the private sector. The national strategy should be seen in the context of the larger regional strategy to strengthen CEMAC integration.

Graduating to emerging market status by 2020—ports and highways in Equatorial Guinea are a key pillar to increased trade. Over the near-term, the authorities also intend to continue orienting the economy toward identified key sectors (agriculture, fishing, tourism), filling the void left by a still infant private sector, through creation of public companies and agencies, as they have done in the management of public investment (highways, real estate).

THE GREEN REVOLUTION IN EQUATORIAL GUINEA: A NEW RENAISSANCE for the AGRICULTURE SECTOR.

Introduction

At the express request of H.E. the President of the Republic of Equatorial Guinea, Management & Economics Consulting, Inc. (MAECI) a USA Company, has assisted the authorities in undertaking a comprehensive and far reaching feasibility study for the diversification of the economy towards the non-oil sectors with emphasis on agriculture, livestock, Small and Medium Size Enterprises, Small and Medium Size Industries. This request is in support of the new “National Economic Development Plan” which was adopted in November 2007 at the Second National Economic “Horizon 2020” Conference. **This visionary National Economic Development Plan by H.E. the President (whose passion has always been and remain the well being of his population), outlines the strategies and reforms necessary for Equatorial Guinea to take advantage of its unique opportunity to use its non-renewable oil wealth to, foster the well being of its population and future generations through the following summarized main goals:**

- reduce poverty through improved health, education and skills development;
- foster environmentally friendly economic diversification including tourism, and sustained broad-based growth;
- develop agriculture, fishery and livestock, as the cornerstones of this diversification and lasting economic development;
- build supporting infrastructure including information and communication technologies as well as the availability of potable water.

Implementing the Program.

In order to launch sustainable agriculture in this country which 80% of the total land is covered by forest, it was necessary to adopt a new ecological deforestation which respects the environment and preserves the thin fertile layer of the soil. The following step were followed:

- Clearing is performed in the most ecologic manner in order to preserve the top fertile layer of the soil which has been constituted for centuries. This is the most innovative technique in the agricultural field.

- Hand cutting of the grasses and small bush is first performed. Chain saws are used to cut down the trees. The bigger trunk of the trees are treated chemically to transform it into fertilizer after five to six months. This avoid the use of heavy tractors to remove the stumps and destroy the basic equilibrium of the soil structure. Small bulldozers are used to carefully remove the small stumps with great care taken to not plough into the topsoil. Labour force is drawn from the villages surrounding the sites, which provide income to the population, stabilize the youth in the village and reduce an/or eliminate rural exodus. Those workers clear by hand the small debris to prepare the land for agriculture.
- Before even starting the deforestation, soil samples were taken and analyzed in laboratories, to determine the type and characteristics of soils, and the type and quantities of supplemental fertilizers and nutrients to be used depending on the speculation (corn, potato, cabbage, green beans, tomato, Plantain, yam, Yucca or cassava, soybean, Papaya, citrus, carrot, eggplant, groundnut, watermelon, green pepper, etc); to name but a few.
- Fertilizers and insecticides needed, were selected on ecological basis, and were used in accordance with the more adapted technique of protecting the environment. The final goal being to make Equatorial Guinea, the first world country to embrace the bio-agriculture.
- Also with the soil preparation for planting, care was taken during tillage to preserve the soil and prevent soil erosion.
- All seeds used are imported principally from USA; no GMO seeds is used for any crop or vegetable.

Based on the results achieved so far, within the span of less than 18 months, (see few pictures below), the initial conclusion is that Equatorial Guinea can produced all the basic crops and can achieve Food Self sufficiency in a relatively short term. All the crops planted are growing very well and are adaptable to the environment. Plant health is very good, and plant development is progressing very rapidly. This farming system has already produced more than 500 Tones of corn and the country is already installing the industrial structure for the production of animal feeds to launch poultry pigs and livestock development.

The vegetables are growing very well. We have planted different varieties of Potato, Green Bean, Tomato, Watermelon, Cantaloupe, Pepper, Eggplant, and Cabbage, Carrot, Corn, Soybean, Papaya, Yam, etc. Additional vegetables and spices were brought from Cameroun and are also growing very well and could

become part of the line of crops to be produced in the country and not imported. It is expected to add nutritional education component to ongoing program, in order to diversify the consumption habits of the population. Others cultivars such as citrus, are being introduced; apiculture and livestock are also being developed and in a non distant future, “small and medium size enterprises” and “small and medium size industries” would be part of this promising agriculture landscaping. The success of this initiative instructed by the President of the Republic, Head of State, reflects his Economic and Social Development Vision embodied in all the President's economic and social development speeches, namely, that: "Equatorial Guinea is capable of achieving self sufficiency in food production and even attain food export; what is needed, are determination, investment and appropriate policy and adapted technologies".

With the success achieved so far, the Ministry of Agriculture and Forestry, has, for the first time in the economic and social development history of the country, launched a more comprehensive agricultural development program covering all the Provinces of the country. In line with the recommendations of the recommendations of "Second National Economic Development Program, Horizon 2020" held in Bata Equatorial Guinea in November 2007, this unique Agricultural Program named the "Green Revolution of Equatorial Guinea" under the direct supervision of the Minister of State, in charge of Agriculture and Forestry, is to use the agricultural technique described above, to achieve food self-sufficiency within 2/3 years and reduce and/or eliminate food imports; stabilize population and particularly youth in the rural areas and reduce rural exodus; create more stable and sustainable jobs; improve the living conditions of the population; increase the income level of the rural population; create a more sustainable basis for the small and medium term industries and enterprises. It is a daunting challenge for the country, but it is the dream of the Authorities and of the whole population; a dream they expect to become reality.

One expert from the Ministry of Agriculture and Forest expressed the general feeling as follows: “we are very pleased with the start of this important program, and we feel that we have the ability to provide Equatorial Guinea with its very own sustainable food source”.

Conclusions: Economic, Financial and Social Impacts

The agriculture sector's development has taken a new dimension and is considered as one of the main pillars for a more stable and sustainable economic and social development of the country.

It is clear that agricultural production will not be profitable on the basis of the production alone and must be complemented by the derivative "small and medium term enterprises" and "small and medium term industries".

The program will, first of all, benefit the national economy:

- Reduction of the imports of food and food derivatives; saving in foreign reserves, (estimated at 100-150 millions Euros/year);

- Availability and increase in consumption of healthy food and food derivatives;

- Creation of substitute to traditional food products;

- Contribution to the reduction of inflation; stabilization of the rural population especially the youth, via the reduction of rural exodus;

- Creation of jobs; an increase in the incomes of the rural population through vulgarization;

- From the inception of the project, qualified equato-guineans coming from the National agriculture school would be used extensively and others sent abroad for training to take over from foreign experts/managers in the very short term.

- Improvement of the living conditions of the Equatorial Guinean population at large; and last but not least, the reduction in the level of poverty.

- The Program will also offer new economic opportunities to the rural population, especially women, thus, contributing to their stabilization, to peace and to prosperity.

- It would contribute to the improvement of the Balance of Payments, via the increase in exports; the reduction of imports of food and food derivatives, the increase and savings in foreign monetary reserves.

More importantly, it would significantly contribute to the National Economic Diversification Policy, one of the main pillars of the wise and comprehensive National Economic Development Policy, set up by H. E. the President of the Republic, as framed in the Conclusions of the Second National Economic Conference of November 2007.



Corn Field Mongomo EG.



Eggplants and Green Pepper
Mongomo EG



Tomatoes and Cabbage Mongomo EG



Tomatoes-cabbage Mongomo EG



Cabbage Field Mongomo EG



Cabbage Field Mongomo EG



Cabbage Field Mongomo EG



Corn Field Mongomo EG