

# Republic of The Gambia National Report 2012





#### PREFACE

This report on national efforts to integrate the three pillars of sustainable development and engineer the transition to a green economy is in fulfillment of The Gambia's commitment to the Rio process. It is also an update on the national WSSD report as well as an expression of the Government of The Gambia's incessant drive to live up to its mandate to improve and sustain the socio-economic and environmental conditions of all Gambians according to the National Vision 2020.

Integration of related and mutually reinforcive sectors in development programming is not a novelty in The Gambia's development landscape. Following the successful implementation of an economic recovery program in the 80s, The Gambia launched the Program for Sustainable Development in an attempt to redress socio-economic inequities and income disparities in the economy. The ascendance of environment concerns in the international agenda culminating in the Rio process was also responded to through the development of a two-phased Gambia Environmental Action Plan, which is still under implementation.

Within the context of this report, the PRSP and the national MDG program, which cut across all pillars of sustainable development as assessed and The Gambia's position on the relationship between the MDGs and the prospective post-2015 paradigm of SDGs stated. However, the current institutional an programmatic framework that encapsulates all three pillars of sustainable development is the PAGE. As an integrated national program, its coordination mechanism is more elaborate than the inter-sectoral outfits of the GEAP, the GNAIP and the MDGs from a lateral perspective. It is also of a higher authority in term of hierarchy. However, to avoid duplication of effort and to maximize impact, the modus operandi is one of information sharing, resource sharing and the taking of joint action either simultaneously or sequentially at all levels. The implementation monitoring and evaluation processes of the inter-sectoral programs also feed into that of the PAGE and vice versa.

The Gambia's commitment to a green economy is predicated on the realization of the economic importance of its natural resources for wealth creation, employment, livelihoods, poverty reduction and sustainable improvement of the welfare of the population. Indeed, as evident in the GEAP, The Gambia has had solid credentials of green economy characteristics in the form of policies, regulations, resource management techniques ranging from scientific strategies to community participation, management and ownership of fisheries, forest, wildlife and water resources to enhance their sustainable utilization. The Government also monitors the level of GHG emissions and is committed to promoting LPG as a substitute of fossil fuels and the promotion of renewable energy alternatives. National efforts at disaster prevention have not been wanting and as documented, the government has taken steps to adjust to the new paradigm of resilience reinforcement and the integration of disaster risk reduction and climate change adaptation.

However, the report reveilles financial and capacity constraints that militate against further progress. The paradox is that these prerequisite means for sustainable development exist in abundance in the industrialized countries, the development patterns of developing countries like Te Gambia. The challenge of Rio plus 20 therefore, is to make a turning point towards significant packages of assistance to fill the financial and capacity voids of developing countries. This is a sine qua non for further progress in poverty reduction and all other aspects of sustainable development in the march towards 2015 and beyond.

### Acronyms

CBG	Central Bank of The Gambia
CCA	Climate Change Adaptation
CSO	Civil Society Organisation
DRR	Disaster Risk Reduction
DWR	Department of Water Resources
ECOWAS	Economic Community of West African States
FAO	Food and Agriculture Organisation
GEAP	Gambia Environmental Action Plan
GEF	Global Environment Facility
GEG	Global Electrical Group
GHG	Green House Gases
GNAIP	Gambia National Agricultural Investment Program
GREC	Gambia Renewable Energy Center
GTTI	Gambia Technical Training Institute
HILEC	High Level Economic Committee
HIPC	Highly Indebted Poor Countries
IFMIS System	Integrated Financial Management Information
IWRM	International Water Resources Management
MAF	MDG Accelerated Framework
MDG	Millennium Development Goal

MDI	Management Development Institute
NARI	National Agricultural Research Institute
NAWEC	National Water and Electricity Company
NEMC	National Environmental Management Counsel
NGO	Non Governmental Organisation
PAGE	Program for Accelerated Growth and Employment
PRSP	Poverty Reduction Strategy Paper
ТАС	Technical Advisory Committee
UNIDO	United Nations Industrial Development Organisation
UNISDR Reduction	United Nations International Strategy for Disaster
VSO	Voluntary Service Organisation
WHO	World Health Organisation

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#### **1. INTRODUCTION**

The Gambia is one of the smallest countries in West Africa, surrounded by the Republic of Senegal in all sides except the Atlantic Coast. The country stretches approximately 400 km eastwards, and its width varies between 80km at the Atlantic and about 28km in the inland east. The country is divided horizontally by the River Gambia and the surface area is about 11,000 square km, 50 percent of which is arable land.

The climate has Sudano-Sahelian characteristics of short rainy seasons with rainfall varying from 900 mm to 500 mm and between 14degrees C to 40 degrees C.

The economy is primarily dominated by services and agriculture, which account for 59 percent and 29 percent of GDP respectively. Agriculture employs about 44 percent of the population. The average growth rate of the economy varies between 4.5 percent between 1997 and 2007, reaching 7 percent in 2007. The per capita gross national income was estimated at USD450 in 2007, significantly less than the USD952 average for sub-Saharan Africa and hence influencing its low ranking in the human development index.

The Gambia has had experiences in sustainable development initiatives through graduating from structural adjustment in the 1980's to macro-economic stability leading to attempts at sustainable growth with equitable income distribution through its program for Sustainable Development in the 1990's. The Gambia also successfully implemented the Poverty Reduction and Growth Facility between 2007 and 2009 and qualified for HIPC

The Gambia participated effectively in the negotiations of the international environmental conventions as well as in the WSSD. The National Report to the WSSD documented the Gambia's efforts in all the spheres of sustainable development and its experience in greening natural resource management techniques. The highlights of the report centered on the enactment and enforcement of the National Environment Management Act 1994 and related legislations through the Gambia National Environmental Action Plans (GEAP 1 and GEAP 2), the mainstreaming of environmental management through raising of awareness on environmental issues and the establishment of The Environmental Fund.

Enforcement of these regulatory environmental legislations has been a priority of the Gambia Government as well as the implementation of provisions of the international environment conventions. These initiatives unfold within the context of programs like the PRSP and the MDGs as well as other sectoral programs. This report to the Rio Plus 20 Summit is an update on the developments covering the decade 2002-2012. Its contents are cast in the institutional framework to integrate the three pillars of sustainable development and techniques of natural resource management that serve as tools for conservation and sustainable resource utilization in the sectors of agriculture, fisheries, forestry, water resources and energy as well as in disaster risk reduction and climate change adaptation.

The process to produce this document entailed desk review of relevant literature, consultations with experts in the sectors and thematic programs reviewed and revision of contents of the document to input stakeholder contributions following a validation workshop.

#### 2. INSTITUTIONAL FRAMEWORK FOR SUSTAINABLE DEVELOPMENT

The Government of the Gambia has had a dynamic policy landscape in pursuit of the goal of sustainable development based on the National Vision 2020 and through efforts to implement multi sectoral programmes and comprehensive sectoral initiatives. The National Vision 2020's mission statement is to transform "To transform The Gambia into a financial centre, a tourist paradise, a trading, export-oriented agricultural and manufacturing nation, thriving on free market policies and a vibrant private sector, sustained by a well-educated, trained, skilled, healthy, self-reliant and enterprising population and guaranteeing a wellbalanced eco- system and a decent standard of living for one and all under a system of government based on the consent of the citizenry."

The quest for a proactive policy environment for sustainable development was demonstrated in the National Report 2000 to the WSSD, which this report attempts to update. The point of departure is the recognition that the PAGE is the current national institutional framework with the goal of consolidating the goals of previous efforts and to address old and emergent challenges of sustainable development from 2012-2015.

The strategic pillars of the PAGE range from accelerating and sustaining economic growth, improving and modernizing infrastructure, strengthening the human capital stock, enhancing access to social services, improving governance, reinforcing social cohesion and cross-cutting interventions. The latter includes food security, gender equality and women empowerment and environment disaster risk reduction and climate change.

The PAGE is informed by lessons drawn from past strategies like the PRSP; it takes the new domestic and international economic context into consideration, and is fully aligned with the Millennium Development Goals, which contains elements of the -three pillars of sustainable development. The concern for accelerated economic growth and employment and the improvement and

modernization of infrastructure, governance and economic competitiveness are consistent with the respective specifics of goals 1,7 and 8 for the eradication of extreme poverty and hunger, ensuring environmental sustainability and forging a global partnership for development. Pursuit of the objectives of the social pillar of sustainable development cuts across Pillars 3 and 5 of the PAGE which respectively concern the strengthening of human capital and enhancing access to social services, reinforcing social cohesion and mainstreaming cross-cutting issues. These elements correspond with the education and gender related MDG's 2, 3 on universal primary education and gender equality and women empowerment as well as the health concerns of MDGs 4, 5 and 6 to reduce child mortality, improve maternal mortality and combat HIV/AID malaria and other diseases. The PAGE's strategy for further advance in mainstreaming cross cutting issues is amongst other concerns to make progress in the environmental aspects of sustainable development.

The PAGE therefore serves as the context and program framework in which the Government of the Gambia will continue attempts to synergize the economic and social dimension of economic development with elements of the green economy. However, given that the concept of the green economy seeks to harmonize economic growth with income distribution and equity and institutionalize the principle of intergenerational equity in resource use, the thrust of the green economy is to adjust past techniques of sustainable resource management to emerging challenges and to scale up best practices in integrated development programming and management.

The Government of the Gambia's perspective of the green economy therefore centers on economic growth with employment, improved quality and coverage of social services and continued protection, conservation, disaster prevention and sustainable use of natural resources. Thus, the focus will continue to be the goalorientation of the MDGs for poverty reduction and the evolution of a low carbon production regime that views the green economy as a decision making framework allowing for policy space and flexibility to foster tradeoff and policy options based on national priorities.

Implementation arrangements of the institutional structure call for the collaboration and cooperation of all relevant structures. The overall integration of the economic/natural resources and social dimension of sustainable development in a transition process to a green economy is the responsibility of Cabinet. This responsibility has since been delegated to the High Level Ministerial Economic Committee (HILEC) which predates the PAGE but which assumes the role of the coordination mechanism at the apex for the implementation of the PAGE. Thematic and other cross sectoral Cabinet level coordination mechanisms such as the National Environment Council (NEMC), the Population, Nutrition and Disaster Preparedness Councils exist and are operational, but they function as

sub-committees of the HILEC given the functional boundaries of their respective mandate.

A National Coordination Committee comprised of all permanent Secretaries in each sector assumes the responsibility of oversight

to oversee the actions to implement the activities under the five pillars of the PAGE. The Steering Committee charged with responsibility of oversight to supervise and mange implementation of the GNAIP with broad base membership to include civil society and private sector representatives has the status of sub-committee of the National Coordination Committee.

A national implementation team sits under the national Coordination Committee in the hierarchical structure. This mechanism is run by senior technical staff members across all sectors with knowledge and expertise to ensure that implementation unfolds according to plan and that the overall process is evaluated on a continuous basis. The national implementation team has overlapping membership with thematic and cross sectoral taskforces and working groups such as the Natural Resources working group under the GEAP, the mutisectoral taskforce under the GNAIP and other similar arrangements.

The institutional structure of the PAGE also provides for sector teams responsible for implementation, monitoring and evaluation of the PAGE and to ensure that the contributions of their respective sectors are clearly defined and implemented.

At the community level, in accordance with government's decentralization policy the original divisional coordinating committees have been transformed into technical advisory committees (TACs) and mandated to ensure the integration of development efforts of local communities with national policies and plans. Chaired by the regional governors, the TAC membership encompasses public sector and civil society representatives and the committee is linked in the order of hierarchy to the ward and village development committees.

The multi-disciplinary facilitation teams constitute a very important coordination mechanism at the divisional level. They comprise of inter agency staff that provide technical support and deliver specific technical services at the ward and village level. These and other coordination bodies in consultation and cooperation with NGOs and CBOs have numerous functional responsibilities including planning, data collection, capacity building, preparation of the divisional master plan, local environmental action plans, community action plans and public service provision.

The section that follows assesses performance of the 3 pillars of sustainable development as integrated within the institutional structures of the PRSP and the MDGs during the decade (2002-2012) under review.

## 3. ASSESSMENT OF ECONOMIC GROWTH AND THE THREE PILLARS OF SUSTAINABLE DEVELOPMENT UNDER THE PRSP AND THE MDGS

For the decade 2002 to 2012, the main drivers of economic growth for the Gambia have been the agricultural sector and tourism industry. However, real GDP growth fluctuated influenced by the fuel prices, global financial crisis in 2009 and the food crisis of the 2011 production due to insufficient rains and irregular rainfall pattern. However, real GDP growth rebounded from an average of 5.9% between 2003 and 2006 to about 7% in 2007 and dropping to 6.3% in 2008 led by strong growth in agriculture, tourism and the construction industry. The GDP growth rate further declined in 2009 against the backdrop of the Global financial crisis and its impact on tourism and variable growth in industry, reexport trade activities and construction in recent years. In 2010, the recorded GDP growth rate of 5% in spite of the impact of the economic crisis on tourism receipts, remittances and foreign direct investment compared to that of the best performing economies in the ECOWAS Region. The growth was driven primarily by significant increases in agricultural production, underpinned by good rains and policy support for the expansion of the upland rice production program. However, the projected real GDP growth of 5.5 % for 2011 aimed at strengthening the macro-economic foundation required to further enhance the enabling environment for rapid and sustainable growth and poverty reduction was not achieved due to the food crisis that resulted from the climate conditions on agricultural output.

On the fiscal front, revenue overturn weakened during the first half of 2010 resulting in a higher than budgeted deficit of 0.5 per cent of GDP. Rising input prices of fuel eroded revenues and slow growth in the non-agricultural sectors of the economy dampened the company income tax base. Corrective measures taken by the Government included raising fuel prices, expenditure control and the reprioritizing of expenditure in favour of the PRSP as well as reducing domestic debt relative to GDP limiting net domestic financing to 0.4 per cent of GDP.

On the external sector, the current account deficit declined to 10 per cent of GDP in 2010. This was attributed to a surge in exports, increased domestic production of food crops to curb imports, better marketing strategies by the Gambia Groundnut Corporation and the formation of the Gambia Transportation Association which helped increase export of groundnuts and re-exports.

The capital account witnessed a rise in travel income as a percentage of GDP by about 11 percent reflecting the rebound in the tourism sector and increase in remittances by 10 percent in 2010. Foreign direct investment also declined by 14 percent and net international reserves stood at USD121 million, down by USD28.6 million since December 2009.

The monetary aggregates in terms of reserve and broad money grew at a rapid rate of 21 percent and 20 percent respectively overshooting the CBG's monetary targets. The Government's higher than expected recourse to central bank financing contributed to the rapid growth in reserve money. The CBG will however continue to maintain a floating exchange rate policy, intervening in the market only to maintain orderly market conditions allowing the dalasi to reflect market conditions will continue to help the Gambian economy to adjust to external shocks that inevitably impact small open economies.

Significant progress has also been made on public financial management reforms, with technical assistance from the IMF and donor community. The reform agenda included instituting integrated financial management and information system, improving budgeting procedures and the eventual introduction of a medium term expenditure framework and program budgeting. The anticipated benefits from the Public Financial Management reforms range from full implementation of the IFMIS which has already been rolled out to all 22 government ministries and spending agencies, the conclusion of a technical agreement between the Ministry of Finance and Economic Affairs and the Central Bank on specifications for inter-facing IFMIS with the National Payment System reforms and the piloting of an internal medium-term expenditure framework (MTEF) in at least 2 line ministries in preparation for the 2013 budget.

#### **3.1 ASSESEMENT OF THE PRSP**

The enabling macroeconomic environment created through the fiscal, monetary and exchange rate regime and the economic growth it has generated have impacted on the quality of life and welfare of the population evident in the assessment of the PRSP11 and the MDG interventions undertaken.

Like the MDGs, the PRSP 11 which has been a follow-up to PRSP 1 clusters aspects of the three pillars of sustainable development. The broad pillars of focus included:

- 1. improving the enabling policy environment to promote growth and poverty reduction
- 2. enhancing the capacity and output of productive sectors such as agriculture, fisheries, industry, trade, tourism and infrastructure, with emphasis on the productive capacities of the poor and venerable populations
- 3. improve the coverage of the basic social services and social protection needs of the poor and vulnerable
- 4. enhance governance systems and build the capacity of local communities and civil society organizations (CSOS) to play an active role in economic growth and poverty reduction and

5. main-streaming cross-cutting issues such as gender, youth, population, HIV/AIDS, nutrition and environment into the development process.

These pillar objectives were further integrated through detailed policies and programes within the context of a matrix linking identified poverty issues to policy responses, delivery strategies and targets both to facilitate implementation and enhance monitoring and evaluation of progress.

Implementation of the PRSP11 resulted in achievements in the advancement of various aspects of the three pillars of sustainable development, in spite of many challenges. Progress in the economic dimension of sustainable development was enhanced by growth rates that surpassed the PRSP11 set targets; strong macroeconomic performance strengthened fiscal management and monetary co-ordination resulting in the prevention of slippages and a comprehensive civil service reform strategy (2008-2011) was developed, to strengthen institutional capacity in policy formulation, human resources development, enhanced performance and efficiency and programme co-ordination and monitoring. Developments in economic infrastructure included major investments in roads improvement and the formulation of a National Information and Communication Infrastructure Policy, plans and strategies, in e-government and other e-strategies.

Growth sectors of agriculture, tourism, trade and manufacturing also witnessed measures to strengthen sustainability of their operations. An agriculture and Natural Resource Policy 2010-2015 was formulated, a tourism master plan tenable up to 2020 was developed, a National Trade Policy and action Plan operational, a competition Policy and law enacted, and manufacturing companies encouraged to participate in the ECOWAS trade liberalization Scheme.

The social dimension of sustainable development was also advanced through achievements in health, education, gender and improvements in livelihoods at the community level. Physical access to health care improved through the expansion of health facilities and the training and recruitment of health personnel. The introduction of the Policy of Universal Primary education with free basic education for the girl child enhanced enrollment at the primary level with positive spill-over effects at the tertiary level indicated by significant increases in enrollment at The Gambia College, MDI, GTTI and the UTG. The Community Driven development Program supported about 600 communities to improve their livelihoods and the capacities of extension workers as well as local government officials. In terms of women empowerment, women had been trained in terms of skills development and income generation activities and in participation skills in decision making. Gender parity between boys and girls at lower basic level has been significantly improved through free scholarship to girls across all the

regions with significant donor support. About 1250 women were trained in the area of vegetable gardening.

The green economic aspect of sustainable natural resources and environmental management was also promoted under the PRSP. The Government of the Gambia lifted import tax on all forms of renewable energy and energy efficiency equipment in March 2008 to promote development, sustainability, protection, standardization and uplifting of the sector in the Gambia.

#### **3.2 ASSESSEMENT OF THE MDGs**

Since the adoption of the Millennium Development Goals Declaration, the socio economic and environmental development imperatives of the Gambia government have been the attainment of the MDGs in order to improve human well being and social equity amongst the Gambian population, while reducing environmental risks and ecological scarcities.

The MDGs Status Report 2010 is the fifth assessment of MDG progress constraints and challenges at national and sub national levels. The Gambia has made significant progress towards attaining some targets in all MDGs but significant efforts are required to achieve the MDGs in their entirety.

The overall poverty rate has decreased to 58 percent in 2003 from 61 per cent in 1998. However poverty had decreased significantly in 2010 to 36.9 per cent and 48.4 percent in accordance with the USD1.25 per person threshold respectively. The 2010 multiple indicator survey has as shown that the proportion of children under weight which is the proxy indicator measuring hunger has decreased from 20.2 percent in 2005 to 17.4 percent in 2010, which clearly indicate that concerted efforts are required to meet the MDG target of 10.4 percent by 2015.

The Gambia has attained the target set for Goal 2 on the proportion of pupils reaching the last grade of primary school and is on track to attain the target for net enrollment in primary education and literacy rate among the population aged 15-24 years.

With regards to goal 3, i.e promoting gender Equality and Empowerment, target set on gender parity in primary and lower secondary schools has been attained and the Gambia is on track to reach the target of parity at Senior Secondary by 2015. In terms of the target on proportion of seats held by women in the national parliament and local councils, females continue to trail behind their male counterparts with 6.25% of female members of parliament and 13.91% of local council membership being women visa-a-vie the MDG target of 33%. However, females constitute 33% of Cabinet Ministers and the Vice President post has been held by a woman for almost a decade.

Goal 4 i.e reducing Child Mortality indicated mixed results. Immunization targets set for the proportion of 1 year old children immunized against measles has been attained. However, the country is currently unlikely to meet the MDG target of reducing under five mortality to 67.5 and infant mortality to 42% unless the historical trend is positively reversed. In 1990, under five mortality was 135 per 1000 and in 2010 it stands at 99 per 1000. The infant mortality rate is currently (2010) at 81 per 1000 from 93 per 1000 in 2005 and the under five mortality was 131 per 1000 in 2005 and has dropped to 109 in 2010.

Goal 5- improve Maternal Health is somewhat problematic given the disparity between the current level of national performance and the main target. The most recent data on maternal mortality is the 2001 maternal mortality survey which estimated the maternal mortality ratio to 730 per 100,000 live births against the MDG target of 263 per 100,000 live births. The 2008 report on Count to 2015 for maternal, new born and child survival estimated maternal mortality rate for the Gambia to be 690 per 100,000 live births. On the related indicators of the proportion of births attended by skilled health personnel, the national percentage has decreased slightly from 56.8% to 56.6% in 2010 as against the 90% by 2015. The national contraceptive prevalence rate has dropped to 13.34% in 2010 and the percentage is considered low compared to other sub-Saharan countries as well as the MDG target for the country which is 30%. On the adolescent birth rate for 1000 women indicator measuring births to women aged 15-19 years, the proportion of this target population that never married increased from 61% in 1993 to 80% in 2003; and births declined from 200 births per 1000 in 1993 to 167 and 103 per 1000 adolescents in 1993 to 2003 respectively. In terms of achieving the target of universal access to reproductive health, the 2006 rate of 97.8% has increased to 98.1% in 2010 which is very close to the MDG target of 100%. It is however guite instructive that in spite of the progress registered in some of these indicators to improve maternal health, the country is not likely to achieve the main target of reducing the MMR by three quarters in 2015, given the current rate of 730 per 100,000 as against the target of 263 per 100,000 live births.

On MDG 6: Combat HIV/AIDS, malaria and others, the proportion of under five sleeping under ITN is on track to meet both the Abuja and the MDG targets of 80% of under five children sleeping under ITNs. On HIV/AID, the country has reduced the prevalence from 2.8 percent HIV 1 to 1.42 percent and 0.9 per cent HIV 2 to 0.5 percent; however, given the recently reformulated goal by the Director of NAS to reduce the prevalence from 2.8 percent to 2 percent by 2014, it is somewhat premature to predict the future.

With regards MDG7- Ensure Environmental Sustainability, the country's 50% performance surpassed the 40% target of the indicator of proportion of land area covered by forest. The country is also protecting 74.1% of fish stocks within

safe biological limits. This level of performance to integrate the principles of sustainable development into country policies (target7A) is matched by the country's attainment of the target set (85%) for the proportion of the population using improved drinking water, which is estimated to be 85.8 percent in 2010 and the MDG target is 85 percent which means that the target has been surpassed slightly. For the proportion of the population using improved sanitation facility, the target by 2015 is 92 percent and the 2010 data shows that only 76.3 percent of the population has improved sanitation facilities. Thus in spite of the fact that this MDG on environmental sustainability is on track, there is need to work on the variance of 16 percent for the attainment of the 92 percent target for the proportion of the population using improved sanitary facilities.

Goal 8- Develop a Global Partnership for Development. The country reached completion point and became eligible for debt relief to the tune of USD66.6 million under the HIPC initiative and USD373.5 million for 43 years under the MDRI (IMF Press Release No. 07/302, December 20, 2007). Budget support has also been received from ADB and World Bank and programmed budget support lined up from EU, FTI and Global Fund.

From the foregoing analysis, it is evident that the Gambia has made progress in the implementation of the MDGs. However, sustaining this achievement amidst inequalities and regional disparities possess a formidable challenge. As most countries, poverty is a rural phenomenon.. poverty rates have been higher in the rural areas rising from 54 percent in 1992 to 60 percent in 1998 and 67.87 percent in 2003 compared to 33.1 percent, 13 percent and 39 percent respectively in the urban areas. In 2010, a similar trend has been discernable. Using the less than USD1 per person threshold, the head count index in the rural areas is 62.1% whilst in the urban area, it is 21 percent. The trends also persist as the less than USD1.25 per person threshold places rural poverty at 73.9 percent compared to 32.7 percent in the urban areas. Thus with the exception of the urban and quasi urban settlements (Banjul, Kanifing and the Western Region) all regions have poverty rates higher than the national average. Thus also if the 15 percent reduction of poverty target is to be attained by 2015, the challenge is for proper targeting of the most deprived areas of the country which are predominantly rural. The short-comings of this assessment indicate limitations in progress towards inclusive and equitable growth which are aspects of the social dimension of sustainable development. The Gambia attempts with the assistance of the UN system to reverse this trend through a MDG Accelerated Framework (MAF) to put on track progress towards MDC1C i.e. halving the proportion of people who suffer from hunger by 2015. Whilst the success of the MAF may have positive impact on other MDGs that are off track, the inability to fulfill all MDG targets will translate into continuation of the pursuit of poverty reduction in the post 2015 era and the need to integrate the MDGs with the SDGs in the Gambian context.

#### **4. TRANSITION TO A GREEN ECONOMY**

The Gambia depends heavily on its natural resources for its survival and for socio-economic development. The land provides the means to grow crops for subsistence, processing and for exports. The sea and its marine resources are the source of cheap, affordable protein, employment and foreign exchange. The forest provides food and shelter to our animal species as well as fuel wood, timber and other essential produce for domestic use. The ground water and surface water resources fulfill the country's agricultural industrial and domestic needs.

Thus the Gambia recognizes the economic importance of its natural capital for wealth creation, employment, livelihoods, poverty reduction and sustainable improvement of the welfare of the population. The commitment to a green economy is based on this realization. Indeed, the Gambia has practiced resource management techniques consistent with the conservationist and efficient resource utilization thrust of the green economy well before the formulation of the concept. Forest resource regeneration techniques such as the practice of extracting only dead wood for domestic use, the observance of closed fishing seasons and the designation of sanctuaries to protect spawning species from capture have been useful in 'greening' the forest and fisheries sector. The observance of Operation Clean The National on a monthly bases has improved environmental sanitation and reduced the incidents of diseases in the Greater Banjul area. Similarly, the CILSS promoted strategic option of exploiting the vast underground water resources of the Sahel for agricultural production indicated efforts to reduce dependence on rain-fed production and to prevent the damaging effects of drought on the natural capital of Sahelian countries.

The government of The Gambia institutionalized the pursuit of green economy objectives through the Gambia Environmental Action Plans (GEAP 1 and GEAP 2) developed parallel to the preparatory process of the first Rio conference. The objectives were to conserve and promote rational use of natural resources, strengthen the institutional framework for environmental co-operation, integrate environmental issues in economic development and raise awareness on environmental issues. The GEAP was implemented in two phases and formulated through a broad based multi-stakeholder and multi-sectoral consultation process. It provided a long-term vision and direction towards the goal of sustainable and integrated natural resource and environmental management. It is also consistent with the principles of AGENDA 21 and the provisions of the Conventions on Biodiversity, the Climate Change Convention and the Convention on Desertification Control.

The Convention on Climate Change is treated as a specific subject and the Convention on Anti-Desertification is treated under the forestry sector. On biodiversity, The Gambia Government has a vision and a national biodiversity strategic action plan based on the concepts of conservation and sustainable use. Parks and wildlife resources form an important component of The Gambia's biotic assets comprising of seven wildlife protected areas occupying a total land area of 45,772 hectares which include the gazetted Bolong Fenyo Community Wildlife Reserve.

The Integrated Coastal and Marine Biodiversity Management Project has been successful as a pilot initiative to protect threatened and endangered species in the coastal and marine environment. The project also established a community banking programme to facilitate availability of credit and savings mobilsation for villagers, which have boosted dormant economic activities. The project also has a water control and siltation prevention component in the protected area. A biodiversity monitoring system is in place. There is need to strengthen in situ conservation of globally significant species and habitats in The Gambia. Some of the significant achievements of the project include livelihood activities in beneficiary communities, expanded community participation in conservation and sustainable management of coastal and marine species. These achievements have rendered the project replicable to the neighboring countries of Senegal and Guinea Bissau

Documentation of the Gambia Government's experience and sustained efforts in formulating, adopting and implementing green economy strategies in the form of regulations, policies and resource management measures is discussed in the sections that follow dealing with different sectoral and thematic programs in the national economy.

#### 4.1 AGRICULTURE

The agricultural sector is one of the main source of wealth creation and employment. The sector accounts for about 30 percent of the GDP and provides employment for over 75 percent of the population. It is responsible for generating farmers' income, improving food security, improving foreign exchange earnings and boosting revenue.

During the period under review, the sector's output and growth are accounted for by increasing government budgetary resources and donor support for the implementation of the FAO- sponsored strategy for Agricultural Development Horizon 2010 in pursuit of the objectives of the World Food Summit and the Agricultural Transformation Program 1999-2020. The Gambia Government launched the new Agriculture and National Resource Policy in May 2012. The sector led real GDP growth from an average of 5.9 percent between 2003 and 2006 to about 7 percent in 2007 and 6.3 percent growth in 2008. 'Greening' agriculture for increased productivity and improved livelihood has centered on soil fertility management as a principle strategy facilitated by a landuse planning framework and a data base in the form of a geographic information system. Resource management techniques employed included shifts in cropping patterns, changes in farming systems, the introduction of site-specific varieties of crops and adoption of livestock production along crop production. The Soil and Water Management Unit of the Department of agriculture provided demanddriven support to farmers to increase production, reduce or reverse land degradation and implement an integrated watershed management strategy. Conservation techniques utilized to maximise water and soil fertility utilization included dikes to collect run-off water for agricultural production and the construction of water bounds to control soil erosion and maintain soil moisture for crop use.

The sustainable Farm Management Program under the Gambia Agricultural Investment Plan 2010-2015 is to further deepen this 'greening' of agricultural production through integrated soil fertility management techniques ranging from multiple tree-pure stand and farm boundary planting, crop residue and compost management, technology for soil fertility in cereal/ legume rotation systems, native tree and shrub biomass management, integrated water-shed management, liming and use of phosphogypsum, judicious use of in-organic fertilizer and adoption of organic fertilizers to soil conservation practices.

#### 4.2 FORESTRY

The Government of the Gambia recognizes the importance of forest resource management in view of the economic and environmental values of forest resources and the forest ecology. Major products harvested from the Gambia forest include fuel wood (19 percent0, plant food (17percent), construction material (15 percent)., tea and herbs (11 percent) and medicinal plants (10 percent). The services provided by the forest ecosystem range from windbreak, grazing and improved soil facility and water conservation.

The forest area is 26.6 percent of the Gambia landscape. More than 53.2 percent is deciduous while 30 percent is semi- deciduous and only 4.5 percent is evergreen. Mangroves constitute 12 percent of total land area while less than 10 percent is palm. However a comparison of the forest inventory initiatives conducted reveals a declining forest cover. From 505,300 ha of total forest area in the 1981/82 inventory the 2009/2010 inventory indicates a total area of 423,000 hectares. This 7 percent loss has severely affected the mangrove ecosystem, mangroves occupied approximately 67,000 hectares in 1981/82 and this has been reduced to 37,700 hectares, a total loss of 47 percent of the

previous cover. Correspondingly the average wood volume of forest per hectare was 46.1m in 1997/98 and in 2009/2010 it stands at 34.2m. The density of the forest has also declined as the 1997/98 inventory recorded 106 trees per hectare as against the 2009/2010 finding of 42 trees per hectare.

This decrease in the forest cover has been attributable to frequent bushfire incidence which is experienced by 79 percent of the population at least once or more times per year; clearing and conversion of forest and other wooded land to mechanized agricultural production; harvesting of fuel wood by communities and individuals (72%) and industrial wood by government and private institutions (55%); extent of grazing and browsing in almost 65% of total land area; drought; settlement encroachment due to population pressure by farmers and settlers to land adjacent to the forest and construction of highways and feeder roads, which has a toll on forest land.

The 2006-2016 Forest Policy acknowledges the government's decentralization program by encouraging community participation in sustainable forest management and empowering local communities and the private sector to manage their own programs. However, The Gambia forest management concept introduced as a blue print for participatory forest management has undergone some modifications in response to changing realities. Forest management concepts that have been applied include community forestry, community based forestry enterprise development using the market analysis and development approach, community controlled state forest management and co-management of forest parks with communities. It also includes private plantations and natural forest management.

Participatory forest management has been conducted in all regions and involve fire-fighting, tree planting, sensitization and nursery establishment. Women have participated actively in harvesting of forest products especially the collection of fuel wood and charcoal, but not in industrial wood and wood carvings. Community forestry has also increased the earning capacity of communities through the organized sale of forest produce, although the forest activity of households is only 5 percent compared to crop production 26 percent, petty trading 15 percent and livestock rearing 15 percent. Thus community forestry has registered triple wins to include income generation, community involvement in management and protection and conservation of forest resources.

The 2010-2019 Forest Policy and current Forestry Bill 2010 which will update the 1998 Forest Act aim at consolidating these achievements and making further progress in the greening of the forestry sector. The measures that will be put into effect include:

- Concentration in protection and afforestation in areas with low forest cover rates, sensitization of communities and closer collaboration with

the Ministry of Agriculture to minimize conversion of forest to agricultural land and to monitor livestock grazing

- Improved utilization of mangroves byproduct particularly oysters
- The expansion of the regional fire management approach to all regions to help reduce the occurrence of bush fire which affects 79 percent of the population each year.
- More vigorous promotion of the participatory forest management concept to fulfill the policy objective of encouraging private participation in forest resource management and transferring of 200,000 hectares of forest land to the communities by 2019. As at 2006, only 18,000 hectares were under community forestry. Currently, the state owns 88 percent of the forest and 70 percent of other wooded lands.
- The heightening of conservation efforts for some species in areas low in species diversity
- The discouragement of commercial fuel wood harvesting in areas low in fuel wood stock density
- The discouragement of permits for timber tree harvesting to maintain timber species for the future
- Pursuit of alternative energy sources for fuel wood and charcoal.
- Strengthening the use and adoption of new intervention on energy saving stoves within the rural and urban areas
- Increasing the use of the mass media for awareness creation on the current state of the forest involving simplification for the understanding of the rural communities

#### **4.3 FISHERIES**

The fisheries sub-sector contributes 12 percent of the Gambia's GDP, provides livelihood to about 200,000 people and earns foreign exchange for the country. The sector is divided into the industrial, artisanal and acquaculture subsectors.

The industrial fisheries subsector has 20 locally registered companies of which only 9 companies have invested in on-shore processing factories and only 8 factories have so far have been certified to export their products to the European Union countries. Of the eight factories only two are operating and even then at low capacity. The sector licensed 32 industrial fishing vessels in 2007 which are foreign-owned and foreign-fishermen dominated. They land their catches in foreign ports due to the absence of landing facilities for industrial fishing vessels, a constraint that is currently being addressed by the construction of a deep water landing dock financed by the ADB and BADEA. The Government of The Gambia supports private investment in the industrial fisheries sector through incentives in the form of duty free exports, import duty exemption of fishing equipment and duty free fuel exemption which has been recently suspended. The processing plants employ between 1500 to 2000 people who are mostly women.

The artisanal sub-sector employs 30,000 people and in 2005 landed 30,000 tons of fish with an estimated value of D175 million. The artisanal subsector employs relatively low-input fishing methods such as fishing canoes, an estimated 40 percent of which are motorized. The inland artisanal fishery is not as vibrant as the coastal fishery, and often employs traditional methods, involving both subsistence and traditional commercial fishers who sometimes sell to industrial companies their catch of high value demersal species. The riverine fishery resources are under exploited partly as a result of inefficient methods and implements. The Government of The Gambia places high importance on the artisanal fisheries sub-sector as it provides all the fish for domestic consumption, substantial employment and foreign exchange earnings through fish exports. The artisanal subsector employs 1,410 head fishermen and 4,694 assistant fishermen and over 200,000 fish processors who are mostly women. Government's support is in the form of credit, training, organizational support and infrastructure with significant donor assistance.

The aquaculture subsector has not been as vibrant as the artisanal yet it has potentials to improve fish consumption in the rural areas which is estimated at 9 kg/ per person /year vis-a vis 28 kg/person/year in the coastal area. This prompted the government to attempt to diversify fish production for improved food security and the reduction of poverty through acquacultuire development with the assistance of the Taiwanese Technical Mission in the Gambia and the FAO. This led to the development of a National Aquaculture Strategy and its successful implementation in pilot sites with the intention to expand the national program to other suitable areas.

Fish production in the industrial sector recorded by the Fisheries Observer Program (each vessel carries an observer) through its annual series indicates that fish production of the high value demersal species has been on the decline. The Demersal Working Group of FAO's Committee for Eastern and Central Africa Fisheries (CECAF) also has reported that major demersal fish stocks have been fully or over exploited and advised that the effort be reduced by both industrial and artisanal operators. The FAO Working Group on Small Pelagic Fish of Northwest Africa in collaboration with the Institute of Marine Research of Norway has also revealed fluctuating levels of biomass of small pelagics: 212,000 tons in 2004, 284,000 in 2005 and 153,000 in 2006; whilst the Department of Fisheries considers the pelagics under exploited. The conclusion of the working group and institute is that the pelagics are also over-exploited.

The institutional framework of the fisheries sector is defined in the Fisheries Policy 2007, the Fisheries Act 2007, the Fisheries Regulations 2008 and the Fisheries Strategy and Management Plan 2009. The Department of Fisheries is the implementing and oversight agency. The Fisheries Advisory Committee and the Community Fisheries Centers also assume inclusive oversight of the centers and decentralized co-management arrangements. The objectives of the Fisheries Policy 2007 are as follows:

- i. Increased sustainable production of artisanal fisheries for food security, income and trade
- i. A well-developed aquaculture industry capable of producing competitively sustainable supplies of fish for high-value domestic and foreign markets
- ii. Use of fish as a means of improving the nutritional standards of the population
- iii. Increased employment opportunities and net foreign exchange earnings
- iv. Enhancement of increased participation of Gambian entrepreneurs in the fisheries sector
- v. Improvement of institutional capacity and strengthening of the legal framework for the management of the fisheries sector
- vi. Strengthening of the regional and international collaboration with regards to the sustainable exploitation of fisheries resources.

The Fisheries Act 2007 has provisions for improved management of fisheries and the protection of certain stocks and species. The Act prohibits harmful fishing methods and protects certain endangered or overexploited species.

The objectives of the Fisheries Policy 2007 and the provision of the Fisheries Act 2007, which are consistent with the GNAIP policy objectives, support key natural sustainable development goals and efforts to institutionalise green economy resource management techniques as expressed in the PRSP, the MDGs, the PAGE and the National Vision 2020. Instruments available to the Government of The Gambia to improve greening the fisheries sector to ensure sustainable exploitation and conservation of the fisheries resources include:

- declaration of special management areas for community based fisheries management

- establishing closed and open seasons for specified areas and fish stocks
- define minimum fish size regulations
- impose fish gear and fish method restrictions
- Mesh size restrictions, licensing , near shore fishing limits and surveillance

Governance for sustainable exploitation is not only enforced through control but also through self regulation, community participation in management and capacity development through the medium of national and regional projects. While the artisanal operators are not restricted to the 9 mile limit and are exempted from closed areas and seasons, they are restricted on gear, mesh size, minimum fish size and by license fees. Artisanal operators also self regulate themselves through exclusive fishing rights in the shrimp fishery to include rule making, arbitration and conflict resolution. The collective interests of the artisanal fishermen are also pursued by the National association of Artisanal Fisheries Operators (NAAFO) established in 2004 and the Gambia Artisanal Fisheries Association (GAMFIDA).

The Gambia is also has the opportunity to benefit from support to integrate principles of sustainable development of the marine and coastal resources through the second phase of the World Bank 2007-2011 GEF GIRMAC 1 and 11. (Integrated Management of Coastal and Marine Resources). The support is in the area of conservation of vulnerable species and habitats and the promotion of comanagement and the development of fisheries management plans. Similarly, the West African Regional Fisheries Project (2009) involving Senegal, The Gambia, Guinea Bissau, Guinea Conakry, Cape Verde and Mauritania is the source of support to eliminate illegal fishing activities, damage to coastal resources; and to implement access rights agreements and fishing capacity control, as well as governance and management plans based on the ecosystem approach.

Continuity of support in the provision of capacity to enforce the regulatory instruments and resource management measures in accordance with the partnership principles of common and differentiated responsibilities will enhance the greening of the fisheries sectors through addressing its constraints and challenges. These include limited experience and understanding of resource comanagement and sustainable fishing practices, increasing incidence of by-catch in the shrimp fisheries and the catching, landing and marketing of juvenile fish; ecosystem degradation caused by industrial and artisanal processing practices with negative impact on seabed habitats and subsequent loss of critical recruitment mass and biodiversity, illegal industrial fishing and conflict with artisanal fisheries as well as resource-use conflicts within artisanal fishers using different fishing gears.

#### 4.4 <u>ENERGY</u>

The availability of a reliable system of energy supply that is efficient, affordable and environmentally sound is crucial for progress in all three dimension of sustainable development and a condition for transition to a green economy. Energy powers industrial processes, commerce and agriculture and supports the provision of resources in the health, education and water and sanitation sectors. The Government of The Gambia therefore places high importance in the development of the energy sector and has created a Ministry of Energy charged with this responsibility. The Gambia Government is committed to the ECOWAS white paper on energy for all by 2030 and the UN energy for all initiative, both of which are crucial for the attainment of the MDGs

#### 4.4.1 ELECTRICITY

Electricity power supply has been primarily provided by the National Water and Electricity Company (NAWEC). During the decade from 2000, in spite of inadequate, expensive, erratic and unreliable supply with negative impact on investment and production, electricity supply has realised significant improvement. NAWEC has been a vertically integrated monopoly responsible for generation, distribution and transmission. In 2007 however, the independent power producer Global Electrical Group (GEG) Ltd entered into a power purchase agreement with NAWEC to supply electricity in the greater Banjul area. Implementation of the agreement entailed the installation of a 22ww generator plant in Brikama, Western Region which increased the available capacity in the country from 31Mw to 55MW. NAWEC has projected the need for 75MW of additional capacity in the next three years and an additional capacity from 2014 to 2020 of 135MW. The financial requirement for the next three years amounts to USD112.5 million and USD182 million for the period 2014 to 2020. Due to the realisation that public financing may not be available to meet these capacity needs, government attempts to attract private sector investment through continued improvement of NAWEC's utility structure through a strong regulatory and legal system; robust energy policies, procedures and practices; experience and diligent management; and a financially stable utility. Government investment policy also seeks to lure international investment through the West African Power Pool, which is an attempt to overcome the financing and market size constraints of individual ECOWAS member states. It is to assess and harness energy resource potentials of member states and to ensure rational use through a common grind linking all member states.

The Gambia Government also launched the first phase of the Rural Electrification Project in 2006 by commissioning six isolated stand alone generators in six communities with a total installed capacity of 4MW. The project has contributed in improving inclusiveness by engaging the rural population into the mainstream of development. Access to energy in the rural areas has improved productivity and increased employment. The primary objective is to encourage economic growth through continuous power supply to 46 towns and villages and hence contribute to poverty reduction. At its completion in 2016, about 209,000 rural inhabitants will have access to regular power supply.

Energy balance at the national level indicates that the biggest consumers are the households and the transport sectors; the balance has consistently shown increase in petroleum products for energy generation and transport. Increase in wood fuel share of total energy consumption; increase in fuel wood consumption by households and increase in electricity demand. LPG consumption has also been gradually emerging as a substitute for fuel wood energy. Because fire wood is cheaper than LPG the demand for the latter has been restricted to high income people who prefer it because it is more convenient. The substitution process has been constrained by the high import cost as the product is imported by small traders who buy small quantities and by the absence of co-ordination for bulk purchases which could reduce the price.

It is projected that the demand for LPG for domestic and commercial use would grow to 4,200 tons which could further grow to 6000 tons per annum in an optimistic scenario. It is also estimated that through a regional approach for this supply of butane gas or bottled gas as cooking fuel in urban and peri-urban areas, importation of 7000 tons LPG per annum would result in savings of 820,000 tons of fuel wood and a decrease in carbon emission due to the combustion efficiency of LPG stoves.

The Government of The Gambia is therefore committed in its energy policy to review the price structure of imported LPG and to encourage private sector investment in storage capacity and pursue a regional approach in the supply of LPG. The Government of The Gambia is involved in the West African Gas Pipeline Initiative, which is part of the ECOWAS West African Regional Energy Project which seeks to define the sub region's integrated energy resources to meet energy needs within the community and to develop a network to market the product.

#### 4.4.2 TRADITIONAL ENERGY

On traditional energy, the Government has been consistent with efforts to reduce demand from traditional sources through continued provision of improved energy-saving stoves. On the supply side, progress in the transfer of exploitation rights of forest resources to rural communities will proceed and agro-forestry production will also be further promoted. The ban on domestic production of charcoal will be kept and the management of forests will progressively devolve to the communities in live with the objectives of the Forest Policy. Harvesting of green trees will also be continued to be permitted only in zones under community forestry and in accordance with management plans between the Department of forestry and the communities.

#### 4.4.3 RENEWABLE ENERGY

In accordance with the National Inventory Report on Sources and Sinks of green house gas emissions in the Gambia (1994-200) GHG emissions was 81, 378 tonnes of CO2 in 2000 and in 2009 it was estimated at 186,000 tonnes of CO2. In addition, it has been recorded that there has been a heavy run on scarce foreign exchange resources from the importation of petroleum products and a high rate of depletion of the vegetation due to excessive fuel wood extraction. As a result, the Government of The Gambia has been firmly committed to the promotion of renewable energy.

The Gambia Government established the Gambia Renewable Energy Centre (GREC) to promote the use of renewable energy and carry out adaptive research and advise government on appropriate renewable energy technologies. Significant progress has been made in this respect as all technology options have passed their research and experimental stage. Solar water heating, photovoltaic pumps and lighting systems, solar cookers and food dryers, solar powered generators for telecommunication and dispensaries have all been of high utility value. GREG has also been involved in efforts to develop small scale power generation systems through power digesters for decentralised power generation in collaboration with other institutions in Africa and through extra-African South-South co-operation. Energy conservation has also been promoted in households, industry commerce and public institutions as well as through the popularisation of wood-saving cooking devices.

The Gambia has high potentials in the development of solar (PV) and solar thermal technologies as well as wind energy for water pumping across the coastal region. However, biomass generation potential and hydroelectricity generation are low. For biogas however, the expansion of the poultry industry and rearing of cattle in commercial livestock production would respectively increase poultry farm increment yield and collection of cow-dung for biogas digesters. The Gambia's membership of the OMVG, a sub-regional organisation that co-ordinates the development of The Gambia River intends to generate electricity from two dams (Saba-goulou and Kekriti) from which the Gambia expects to acquire 40MW.

The Gambia also expects to make further progress in the adoption of renewable energy through the project: Promoting renewable energy based mini-grids for productive uses for rural areas in The Gambia (2009-2014) financed by the GEF with co financing by The Gambia Government, UNIDO, The European Union, NAWEC, Q-Cell, GAMWIND, GAMSOLAR and the Tanji community. The project seeks to address the financial and institutional barriers that militate against the establishment of a renewable energy regime. The financial constrains include high capital cost, high transaction cost and lack of dedicated financing for renewable energy generation in banking institutions. The institutional barriers include insufficient support and lack of institutional capacity; insufficient technical capacity for the identification, development, implementation and management of renewable energy investment project; limited information on renewable energy technologies and opportunities; and, limited appreciation of the commercial viability of renewable energy projects.

The project attempts to address these constraints in an integrated and catalytic approach including intervention to create a market environment conducive to renewable energy investment and pilot projects aimed at demonstrating the technical and commercial viability of renewable energy projects. The ministry of energy and The Gambia renewable energy centre are among the primary beneficiaries of this project through training on the job as well as formal project management training under the supervision of an international expert. GREC's capacity will be enhanced through the provision of technical information on renewable energy and linkage with the ECOWAS centre for renewable energy and energy efficiency. At the end of the project, GREC is expected to be able to provide awareness raising and capacity building, business development advice, market and technology assessments, project identification and development, quality assurance for renewable energy equipment, monitoring and evaluation of renewable energy projects and to serve as a database of renewable energy resources and projects.

#### 4.4.4 PETROLEUM

The legal and institutional framework of the petroleum subsector has been established. The legislation includes the 2004 Petroleum Act, the Model Petroleum Exploitation, Development and Production Act and the Model Production Sharing Agreement. The Petroleum Commission and the Ministry of Petroleum operations are however focussed in building and strengthening the sector's human resource base in all areas of petroleum resource management such as drilling techniques, petroleum law and economics, petroleum geology, seismic data processing and interpretation, petroleum data management, reservoir engineering and petro-physics.

The resource base has an upstream and a downstream division. The former deals with exploitation, development and production and the latter with refining, storing, marketing and transportation of petroleum products. In the upstream, 2D seismic and 3000 sq km 3D have been obtained, which indicate high potential of petroleum resources.

#### **4.5 WATER**

The Gambia has significant ground and surface water resources endowment, underlain by two major aquifers and drained throughout its length by the River Gambia. The River Gambia is the main source of water for irrigation facilitated by tidal movements caused by the estuarine nature of the river. The result is saline intrusion the front of which could range from 80km to 250 km upstream. Records indicate a drop in the long term mean annual discharge of the river, hence the decrease in the last 20 years, in the upper reaches of the saline front from 235km to 250km.

The aquifer system includes an upper or shallow aquifer of 10m to 120m, and a deep one of depth of 250m to 450m. Water quality in the shallow aquifer is reasonably good quality, while the deep aquifer is of reasonable quality. The deep sandstone aquifer is currently unexploited in the Gambia. However good quality drinkable water is expected to be present only in the eastern part of the country, where the reservoir is expected to hold 80 billion m3 out of an estimated total of about 650 billion m3

Domestic water needs by the rural population on an annual basis is satisfied from non-saline surface water for washing and from wells and reticulation systems that are estimated at 7 million m3. The urban and semi urban populations in the Greater Banjul area consume approximately 14.9 million m3 of water per year.

The livestock population consumes about 3.2 millionm3 annually, 80 percent of which is abstracted from the ground water. Horticulture production requires about 1.9 million m3 in the rural areas and 3 million m3 in the urban areas. Demand for water in the industrial sector is a function of requirements for food processing, product packaging, cleaning and raw materials for some industries.

In terms of the institutional and regulatory framework, the National water Resources Management Bill 2001 harmonised the 1979 Water resources Council Act with existent realities. It defines the role of the Department of water Resources and asserted the need to project and rationally exploit the nations water resources as well as

to control the entry of pollutants into fresh waters. The Water Resources Management Bill 2004 further updated the 2001 Bill, charged the Ministry of Water Resources with the management of the resources and the Departments of Water Resources with the implementation of the National water resources Policy 2006. However, since 2004 the sector underwent significant changes and had to be reconciled with approaches that superceded its provisions. The international water resource management framework was not sufficiently recognised and commitments in the international environmental conventions were not given sufficient prominence. The National Water Resources Policy 2006 had to fill this void in the framework. The policy took into account the decentralisation and demand-driven orientation of the local Government Act 2002. As the planning and management framework for the provision of secure water resources, its under pinning principles range from resource conservation, environmental protection and sustainable fulfilment of needs to equitable balance between access and needs, human capital development for economic progress and discharge of international responsibilities.

The policy also subscribes to the approach to integrated water resource management (IWRM) outlined in the Dublin Statement in 1992. This declaration recognises water as a finite resource and an economic good. It also takes into account the crucial role of women and the need for a participatory approach in its management and provision as well as the co-ordinated development of water, land and related resources for maximum, equitable and sustainable socioeconomic welfare. In addition to this concern for international water management, the policy has a regional dimension in view of the inextricable linkage between management of water resources in OMVG member states and that of the Gambia River and joint the quest to promote best practices for the management of shared rivers.

The management regime provided in the 2006 Policy is anchored on a vision for the sector and strategic elements that provide implementation guidance and technical directive as well as scientific resource management techniques for sustained greening of the sector. The elements of the vision are preservation and sustainable exploitation; appropriate monitoring instruments to ensure resource availability; and partnership building for the custodianship of the resources. The strategies will apply the 1WRM principles through actions such as:

- collection and dissemination of data and information for access to resources and determination of sustainable yield
- the balancing of available resources with projected demand
- application of decentralised principles for the provision of potable water supplies in urban, peri-urban and rural areas
- ensuring that demands from agriculture, fisheries, navigation, industry, tourism and recreation are met in a sustainable manner
- the recognition of conservation and protection management procedures
- harmonisation of water related institutional responsibilities, programs and projects
- institutionalisation of transparent stakeholder consultation participation involvement and co-ordination
- stakeholder endorsed implementation process with agreed interventions ....

- recognition of rural-urban and commercial competition, gender, social class and inter-generational demand in conservation and efficient use of resources
- ensuring the availability of the best technologies and their application through ongoing program of research and development.

An abstraction and improvement licensing system for the balancing of supply and demand, based on the understanding of the river basin hydrology and hydrogeology is functioning. River basin management will continue to focus on the lower reaches of the river where it passes through the Gambia irrespective of OMVG management of the river. Water quality testing and control is a shared responsibility of DWR, NAWEC Area Councils, the National Environment Agency and health professional according to WHO standards the quality of the water is generally good although low ph and high iron (FC) concentrations are observed in some sectors and are usually treated before distribution. The DWR and NAWEC currently maintain a laboratory. However, the intension is to provide smaller laboratories in the Area Councils for local monitoring of potable water supply quality. The DWR also provides advice on flood adaptation techniques and methodologies in flood protection. It can issue a drought order in the event of water scarcity; provide early warning arrangements and alert mechanisms as well as support area councils in the preparation of water management and mitigation strategies.

#### **4.6 DISASTER RISK REDUCTION AND CLIMATE CHANGE ADAPTATION**

The Gambia National Strategy for Contingency and Disaster Preparedness formulated in 1998 identified 10 potential hazards which formed the basis of 10 contingency plans. Since then the GOVERNMENT OF THE Gambia undertook several studies to define the hazards profile of the Gambia in collaboration with the UN agencies and NGOs such as the Gambia Red Cross society in 1998 and Concern Universal in 2005. The latest in this series of studies was the UNDP sponsored study entitled: The Gambia Living with Hazards Report in 2007. This hazards identified in this report included floods, sea level rise, coastal erosion, drought, storms, fires and pest infestation.

Flash Flood incidents have been most devastating and re-current happening in 2002, 2003 and 2004 causing loss of lives, assets and livelihoods. Droughts resulted in reduced yields, poor pasture, insufficient water for livestock and degradation of the forest cover. Desert locust invasion affected 6,837 hectares of farmland in all six administrative regions in the country.

The threat of sea-level rise is not defined but the Gambia is ranked 10<sup>th</sup> amongst the most susceptible to sea level rise. Coastal erosion continues to pose a disaster risk to the economy particularly to tourism and livelihoods of many including women and children. Health hazards in are the form of water-borne,

vector-borne and respiratory diseases and man-made hazards are such as bush fires and domestic fires. Other emerging risks that have been observed during the period 2000-2010 include rapid unplanned urbanization and new pandemics such as Avian flu and HIN1 virus.

The National Disaster Management Act is silent on vulnerability factors. However, given that economic, social, environmental and physical factors influence the ability or otherwise of communities and households to cope and adapt to disaster risks including climate related hazards, it is deducible that it is the poor and disadvantaged that are the most vulnerable.

The Gambia's vulnerability and exposure to natural and man-made disasters was recognized in the National Vision 2020 and in both the PRSP and the MDGs. The Gambia presented its first National communication to the United Nations Climate Change Secretariat. The contents of the report including as it did information on the combined effects of sea level rise, global warming and increased concentration of carbon dioxide in the atmosphere informed the threat of the National Climate Change Strategy. In 2009, the Government established the National Disaster Management Agency and its secretariat under the Office of The Vice President. In 2008, a National Disaster Management Policy was formulated and a National Committee for Disaster management and Food Crisis established under the auspices of the Office of The Vice President. Measures taken to manage the food included a task force on food security with a technical working with representatives of the UN system, civil society and the private sector. A National Disaster Management Counsel was established at the higher level alongside the establishment of the agency and the decentralized structure. Full decentralization of disaster management structures was completed in a year.

A country action plan in response to food crisis was sponsored by the UN agencies and Gambia Government. Government agencies involved included NANA, MOA, MOH, NDMA, and the NGO community and GRCS. A response strategy in the short, medium and long term was also formulated in a collaborated effort by NARI, Action Aid and VSO. At the regional level the ECOWAS program on Food Crisis and Disaster Management under its Regional Agricultural Investment Program has been a source of support in the promotion of an early warning system, the development of a crisis management system, and support to post crisis land rehabilitation.

Activities under the early warning sub-program strengthened the agrometeorological and hydrological capabilities of the DWR and facilitated publication of a decadal early warning bulletin on the rainy season, hydrological situation, crops, pests and disease and livestock situation as well as prices of selected agricultural products and imported commodities. The Emergency Preparedness sub-program is in the process of building functional structures to respond to disaster and to provide support to the National Disaster Management Agency for effective execution of its mandate in providing quick response to food crisis situations and other natural disasters when they occur. Crisis management interventions have been focused on efforts to meet specific needs of the population, mobilize adequate resources to help prevent and cope with food crisis or natural disasters and the provision of social protection of vulnerable groups.

Whilst national and donor efforts concentrated on emergency response and relief in disaster and crisis management, the Government had been moving towards reduction of natural hazards and risks and away from a reactive approach. Risk aversion measures taken include the Banjul Declaration for the prevention of the national floral and fauna endowment; and risk minimization measures included policies on the identification of sustainable landfills in the Greater Banjul Area and the cessation of sand mining in Bijilo. This change of approach towards resilience building was consistent with the provisions of the Hyogo Framework Action, the African Union Program of Action for the implementation of the African Regional Strategy for Disaster Risk Reduction, and the ECOWAS Policy for Disaster Risk Reduction. It is also in line with the reporting responsibilities under the Climate Change, Biodiversity and Kyoto Protocol to feature vulnerability and adaptation programs.

The shift towards strengthening resilience for food insecurity and disaster vulnerability attempts to merge humanitarian, early recovery and development actions. The agenda is on addressing vulnerabilities and food insecurities at the local level as well as enhancing national institutions to strengthen governance and institutional capacity to plan and manage resilience. Emerging good practices which coincide with the Gambia's efforts in the Gambia Agricultural Investment Program include agro-ecology and re-greening interventions, improved support for pastoralism, mainstreaming disaster risk reduction and climate change adaptation. The focus is on people and community needs, national ownership of resilience-based support and national ownership of resilience strategies.

Thus, in accordance with its Disaster Management Program Agreement with UNDP in 2005, the UNDR and the Bureau for Crisis Prevention and Recovery provided technical support in 2006 to assess national institutional framework for DRR and formulation of a National Program of Action. The UN International Strategy for Disaster Reduction (UNISDR) provided advisory support services. The Government's PAGE, which is the current framework for the promotion of the integration of the three pillars of sustainable development, also plans to implement activities to manage risks and vulnerabilities through disaster risk reduction.

Through this diagnostic assessment by the UNISDR, the Gambia Government is quite cognizant of the current situation in disaster risk reduction of all engaged

actors ranging from the U.N. system, civil society to public institutions. The essence of the findings is that whilst progress is on-going in main-streaming DRR, most of the institutions are involved in relief vis-à-vis resilience-oriented activities.

Measured against the provisions of the African regional Strategy for Disaster Risk Reduction and the ECOWAS Policy on Disaster Risk Reduction, as well as the Hyogo priorities of;

- ensuring that DRR is a national and local priority

-risk identification

-knowledge use

-reducing underlying risk factors

-strengthen disaster preparedness, it is established that 18 government institutions and 11 NGOs and Un Agencies are engaged in DRR and CCA. The Government is also fully aware of the need to clarify, resolve and take additional action on certain legal, policy and institutional issues on the mandates of the National Disaster Management Agency and the DWR in their responsibilities for DRR and CCA, identified in the UNDP scoping study 2008 and the recommendations put forward to resolve them. While the National disaster management Council advises government on the co-ordination of government and NGO efforts and ensures that the agency executes policy, there is no statutory institutional structure for climate change adaptation at Cabinet level. At the technical level, the Technical Advisory Group advises on technical issues of disaster risk reduction and the NADM is the technical/administrative arm. The National Climate Committee on the other hand is the technical advisor of the Ministry of Forestry and Water Resources, the DWR its technical arm and the Ministry of Forestry its the Secretariat.

The National Climate Committee however, has the responsibility to raise public awareness on climate change adaptation to inventorise GHG emissions and to report on climate change adaptation options and impacts. The technical level structures of both functions are however decentralized to the regional, municipal, ward and village levels. The government of the Gambia is currently giving due consideration and engaging in consultation with strategic stakeholders to harmonise the policy and legal issues identified in the UNDP scoping mission report and to integrate the institutional structures of the Disaster Risk Reduction and Climate Change Adaptation outfits.

#### 5. CHALLENGES AND CONSTRAINTS

The achievements registered in the implementation of activities integrating the three pillars of sustainable development and in building on the experience and acquired knowledge in institutionalizing a green economy, both in the PRSP and MDG and in the sectoral interventions reviewed are confronted by financing

bottlenecks in the spheres of budgetary resources, development finance and private sector involvement and unfulfilled capacity needs in terms of human resources and institutional efficiency and effectiveness.

#### **5.1 FINANCE**

The lack of adequate financing constrained the implementation of the PRSP and MDGs. Of the USD725 million dollars required for the implementation of the PRSP presented at the Donor Roundtable in February 2008 held in London, only 30-40 percent of pledged financing was received. This affected the rate of implementation of poverty reduction programs in general. The performance of health-related MDG activities was stifled by the challenge to sustain adequate supplies of critical drugs and equipment, maintain an efficient cold chain for the storage and transportation of drugs and vaccines for immunization; and access adequate financial resources for maternal and reproductive health services. Progress in environmental sustainability under the MDGs was also constrained by lack of funding for the complete implementation of GEAP 11 and inadequate funding to implement the national forest program. The Gambia Agriculture Investment program, which cuts across shared resources in the sector of the rangeland, forestry, fisheries and parks and wildlife and whose successful implementation is strategic in re-greening the natural resource and environmental sectors are is also threatened by inadequate donor financing and private investment and partnership.

#### 5.2 CAPACITY

Capacity limitations have been key explanatory factors in the level of performance of the health related MDGs and hence a set of contributory factors in the rate of progress in the social dimension of the sustainable development. Constraints in this area include shortage of health professionals, inability to retain trained manpower in the rural areas, unfulfilled needs for emergency obstetric care due mainly to inadequate health equipment and supplies, inadequate laboratory services and lack of capacities in some health facilities in providing VCT to promote behavioural change in HIV prevention

The fisheries sector is constrained by limited technical capacity and paucity of appropriate equipment and machinery. Similarly, the water resources sector is confronted with the challenge of training the necessary technical and professional staff required in all aspects of water resources management, especially monitoring and research programs. The Gambia National Agricultural Investment Program has low institutional capacity in terms of training, equipment, material and logistic support. The GNAIP is also weak in monitoring and evaluation systems for assessment of program progress, impacts and constraints.

Further progress in environmental sustainability has also constrained by lack of drainage infrastructure in environmental sanitation and weak implementation capacity of the GEAP.

#### **6. RECOMMENDATIONS**

The foregoing has clearly indicated that the Gambia has built an effective institutional framework and co-ordination mechanisms for sustainable development and has had a wealth of experience in implementing multi-sectoral programs with inbuilt greening strategies to include all dimensions of sustainable development. These integrated programmes such as the PAGE, the GNAIP, and the MDGs as well as the sector programs on which they are based have clearly defined policies, regulations and resource management strategies and techniques. Assistance from developed countries to implement these plans will effectuate progress in greening the economy. These plans indicate what The Gambia has achieved in their respective sectors and the financing and capacity gaps in implementing them. The Gambia also expects that these capacity and financing gaps will be filled through collaboration with industrialized countries in the RIO plus 20 family.

Review and assessment of such programs have also facilitated continuity through updating of policy, legal and institutional context of programs and the revision of strategies to adapt to emergent situations and enhance further integration through improved sequencing and complementing of actions to maximize impact. Reviews have also constantly identified structured bottlenecks in means of implementation such as inadequacies in financing and capacity limitations in ongoing and newly formulated ones. Thus it is recommended that in terms of program content, the concerns of poverty reduction continue even during the immediate post 2015 period and to merge the MDG interventions with the anticipated sustainable development goals. For further progress in the national efforts it is recommended that the limitations in financing and capacity be considered and addressed in the Rio plus 20 deliberations. Specifically, The Gambia hopes that the role of the industrialized countries, in accordance with the RIO principle of common and differentiated responsibilities, will be full-filled through:

- honoring their commitment to provide as ODA 0.7% of their respective GNPs to developing countries
- the provision of new and additional financial resources
- the transfer of green economy technologies to developing countries
- support to capacity development in developing countries
- assistance in the area of climate change adaptation

#### **6.1 FINANCING**

The financing gap in the implementation of the MDGS should be filled for progress towards the agreed targets. The Gambia is currently formulated an MDG Accelerated Framework (MAF) to put on track MDG 1C on the proportion of people living in hunger in order to achieve the target of half by 2015.

As successful implementation of the MAF will have positive effects on other MDGs, it will be prudent to fund to MAF fully. Progress in the health related MDG especially reduction in maternal mortality however requires dedicated funding.

As evident the PAGE and the GNAIP as well as the sectoral and thematic programs reviewed subsume interventions crucial in further greening and progress in the three pillars of sustainable development and their integration. These programs and sector plans have investment programs with financing gaps that invite donor financing in the form of grants and concessionary loans as well as private investment and public-private partnership.

It is recommended that RIO plus 20 seek to solidify donor engagement to both honoring the ODA commitment of 0.7 percent of GDP and the provision of new and additional resources to developing countries in accordance with the principles of common and differentiated responsibilities.

#### 6.2 CAPACITY DEVELOPMENT

Capacity limitations constitute a structural bottleneck that militates against all aspects of sustainable development and the greening of the economy. The capacity needs identified in the area of human resources in terms of policy, planning, financial management technical and professional expertise have direct impact on institutional strengthening and program performance.

Sustaining this cluster of critical organisational resource through capacity enhancement in the form of re-training and acquisition of new skills; and the transfer of skills and techniques as well as knowledge acquisition through mentoring, apprenticeship, counter parting and inter-institutional twinning are essential for building institutional capacity.

Complementing these measures with other aspects of institutional capacity strengthening in terms of equipment, technology transfer, networking, building of institutional research capability in appropriate technology are sine qua non strategies to overcome capacity constraints of developing countries.

Capacity development programs in response to the needs identified in the mutisectoral, sectoral and thematic programs reviewed in this report in the form of technical assistance and technology transfer and training through developed

country assistance, south-south co-operation, public-private partnership and civil society involvement in accordance with the principle of common and differentiated responsibilities in the Rio plus 20 partnership, will enhance the potentials to reach both MDG targets and those of the anticipated SDGs.

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