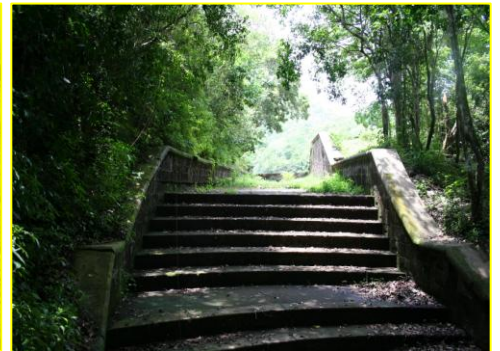




Stock Taking Report

RIO+20

Antigua & Barbuda



RIO+20
United Nations
Conference on
Sustainable
Development



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INTRODUCTION

It has been 20 years since the historic Rio Earth Conference, since that time there has been the Rio + 10 in Johannesburg South Africa and now the upcoming Rio + 20 in Rio, Brazil. The objective of the United Nations Conference on Sustainable Development (Rio+20) is to secure renewed political commitment for sustainable development, assessing progress to date and the remaining gaps in implementation of the outcomes of the major summits on sustainable development, and addressing the new and emerging challenges.

Countries are expected to conduct internal and regional assessments prior to the conference to determine how the first conferences and other subsequent processes have influenced their development agenda. These processes produced several important documents. These are the Rio Declaration on Environment and Development, Agenda 21, the Millennium Declaration, the Johannesburg Declaration on Sustainable Development and the Latin American and Caribbean Initiative for Sustainable Development, the Monterrey Consensus of the International Conference on Financing for Development and the Doha Declaration on Financing for Development, the Barbados Program of Action for the Sustainable Development of Small Island Developing States, the Mauritius Strategy and the World Charter for Nature.

In preparation for this important meeting the countries have held several regional meetings including at the levels of Caribbean Community (CARICOM) and the Group of Latin America and the Caribbean (GRULAC). The CARICOM meeting was held in Guyana on the 20th of June 2011. The results of the discussion found that since most of the countries in the Caribbean were considered to be middle-income, they did not have sufficient access to concessional resources and technical assistance, even though poverty rates had increased. In the last decade weather-related disasters had put the countries of the Caribbean to the test, with serious implications for the economies of the region.

The subregional meeting had led to a series of recommendations at the regional and global levels, which included strengthening the CARICOM and the Alliance of Small Island States (AOSIS), establishing a new model of ocean governance and improving the coordination with the United Nations system in relation to defining sustainable development indicators. The following emerging issues had been identified at the meeting: non-communicable diseases, ecosystem services, the challenges associated with the opening of new shipping routes in the Arctic region and higher sea levels, and climate change and energy, food and livelihood security.

At GRULAC a meeting was held in Santiago Chile on the 7-8 in September 2012. The final output of this meeting identified the following priorities

- the eradication of extreme poverty,
- a change in patterns of production and consumption, in which the developed countries should play a leading global role,
- effective access to and transfer of safe and appropriate technologies, without conditionalities and on preferential terms for developing countries,
- the promotion of a global intellectual property rights regime that facilitates the transfer of such technologies, in keeping with the commitments undertaken by each country,
- full implementation of the right to access to environmental information, participation and justice enshrined in Principle 10 of the Rio Declaration,
- a global institutional framework for sustainable development which is efficient and flexible and ensures the effective integration of its three pillars,
- new, additional, stable and predictable financing for supporting implementation activities in developing countries,
- the fulfillment of mitigation and adaptation commitments in relation to climate change and the building of resilience to its impacts,
- greater South-South cooperation and exchange of successful experiences,
- the restoration of harmony with nature,

- better ways of measuring countries' wealth that adequately reflect the three pillars of sustainable development.

At the time of the preparation of this document the priorities of Antigua and Barbuda were not clearly articulated specifically for the Rio + 20 process. It is expected that this will be done later in the year. The priorities and information presented here were therefore taken from several processes that in 2011 identified as the country's developmental thrust for the next five years. These processes included the completion of national environmental legislation, the National Physical Development Plan, Energy Policy and the commitment to the green house gas reduction by 2020.

The preparation process for Rio + 20 is being led by the Permanent Mission of Antigua and Barbuda to the UN in New York and at the national level by the Environment Division and the Ministry of Foreign Affairs.

BACKGROUND ON ANTIGUA AND BARBUDA

As a small island developing state (SIDS) in the Eastern Caribbean, Antigua and Barbuda (including Redonda) has very significant resources that may be drawn upon to provide a solid base for development yet, nonetheless, also experiences important challenges in managing a sustainable development process. The country's primary resources include a very agreeable climate, outstanding land and seascapes, extensive areas of high ecological value, an engaging history, democratic governance, a well-educated and healthy population, and significant natural resources (beaches, agricultural lands and fish stocks). While the country's natural resources were of primary economic importance throughout much of its history, the other resources listed, coupled with the ease of accessibility to North America and Europe, have led to a thriving tourism industry.

The development challenges that are faced by Antigua and Barbuda are similar to many other SIDS in the region. These include:

LOCATION AND GEOGRAPHIC AREA

Antigua is located at 17° 10' N and 61° 55' W with a total land area of 270 Km². Approximately 40 Km to the north is the island of

Barbuda which is located at 17° 35' N and 61° 48' W with a land area of 155 Km². The islands are part of the Leeward Islands which are in the north-eastern section of the Caribbean archipelago. The twin islands of Antigua and Barbuda sit on an extensive underwater platform known as the Barbuda Bank which has a total area of 3,500 Km² and is within the EEZ estimated at 110,071 Km².

ECONOMIC AND POLITICAL PROFILE

In 2007, Antigua and Barbuda was ranked 57th on UNDP's Human Development Index making it the second highest ranked in the OECS after Saint Kitts and Nevis which was ranked 54th. This high human development rank is based on a life expectancy at birth of 73.9 years, a literacy rate of 85.8%, and GDP per capita of US\$12,500 in 2004. Such a high standard of living makes the twin island one of the three most attractive places for intra-regional migrants within the GEF SGP's subregional programme area, with the others being Barbados and Saint Lucia.

According to the Caribbean Development Bank, Antigua and Barbuda's economy recorded the best economic performance in the 25 years since independence when GDP grew by 12% in 2006 compared with 5% in the previous year. In 2005, the GDP at market prices was estimated at US\$459.487 million and the GDP per capita was US\$10,513. This relatively high GDP per capita was made up of contributions from various sectors as follows:

Transportation and Communications (20.8%); Government Services (16.8%); Construction (16.2%); Financial and Business Services (16.1%); and Hotels and Restaurants (9.9%). Comparatively, the Agriculture sector contributed only 3.6% to the value of GDP in 2005 and has continued its steady decline for a number of years. The main direct and indirect contributor to GDP is tourism which is the most significant economic driver for the economy. In 2005, CDB estimates gross tourism revenue amounted to almost 50% of GDP. Like many other SIDS in the Caribbean, the economy of Antigua and Barbuda has transitioned from an agrarian to a more service oriented economy within the last 25 years, but the economy lacks diversity and therefore resilience.

Crime, poverty and environmental degradation are considered major issues affecting the future development of Antigua and Barbuda. The CDB in its recent economic review noted that violent crime involving firearms had the potential to undermine the "... social and economic fabric of the country, but also because of its potential impact on tourism". Poverty is also a major concern with estimates as high as 18% being quoted, up from an estimated 12% in 1994. This increase is of concern and the Government is well aware of this situation. That same report also noted that there was an increase in evidence of coastal degradation which could have adverse impacts on the quality of the environment and the tourism industry. Antigua and Barbuda enjoys a high standard of living but the economy like many SIDS,

is fragile and vulnerable to social and environmental issues, which includes the impacts of disasters, in particular hurricanes.

POLITICAL STRUCTURE AND GOVERNANCE

Antigua and Barbuda has a bicameral parliamentary system comprising a Senate (Upper House) and a House of Representatives (Lower House). The Queen of England like in many Commonwealth Countries is the Head of State and is represented by the Governor General who is a citizen of the country. The Senate consists of 17 persons who are appointed by the Governor General.

Presently there are 17 seats in the House of Representatives with 13 (including 1 from Barbuda) controlled by the ruling United Progressive Party and 4 controlled by the opposition, Antigua Labour Party.

The island of Barbuda is governed by the Barbuda Council which takes its mandate from the Barbuda Local Government Act CAP.44 of the Laws of Antigua and Barbuda. The Law defines the Council as a:

“ . . body corporate . . . with perpetual succession and a common seal, and power to purchase, acquire, hold, mortgage and dispose of land and other property”. The Council comprises eleven members as follows: the member of the House of Representatives for the constituency of

Barbuda; a member of the Senate who meets the qualifications set out in Section 6 (1)11; and nine elected members. The Council has powers in the following areas: administration of agriculture and forestry; public health, medical and sanitary facilities and services; and administration and regulation of electricity, water and other public utilities. The Council also has the powers to construct, improve and maintain roads as well as to raise and collect revenue. With such powers The Barbuda Council is therefore semi- autonomous but subordinate to the Cabinet of Ministers and takes general and specific directions from that body.

In addition to these formal governmental structures, Civil Society is represented by a number of interest based organisations, varying from the service clubs to Non-Governmental Organisations and Community Based Organisations and in certain cases Faith Based Organisations. A survey by the University of the West Indies in 2004 identified a total of 20 NGOs and CBOs in Antigua and Barbuda. Of that number, only three were found to be well established with the others being “not well established”. The survey also found that the “. . . the degree of effectiveness in facilitating NGO/CBO participation in Sustainable Development Policy. . .” was generally perceived as being limited . . . “ both because of the small number of organisations that participate and because of the lack of a true consultative process”.

ECONOMIC AND POLITICAL CHALLENGES

The economic and political challenges are many, but the major ones can be identified as:

- the lack of economic resilience caused by the dependence on one primary driver for the economy, i.e., tourism;
- the growing national debt as a percentage of GDP which exceeds 100% and is way above the recommended level of 60%;
- the increase in violent crime;
- the impacts of poverty;
- the increase incidence of environmental deterioration in both the terrestrial and marine environments;
- vulnerability to natural disasters, in particular to annual hurricanes; and
- the need to build and nurture a stronger relationship between the people of Antigua and Barbuda.

These challenges though not insurmountable, can only be addressed with an aggressive integrated plan of action driven by a

shared vision of development and a people centered approach to sustainable development.

ENVIRONMENTAL CONTEXT

The environmental situation in Antigua and Barbuda is to a significant extent directly related to its geographical location, its climate, its topography as well as its geology and its economic history. The island has a tropical marine climate with daily temperatures averaging 24°C in December and January and 29°C in August and September. Annual rainfall varies from 125 cm in the south-western section of the island to 60 cm in eastern Antigua. These climatic parameters combine with the topography of the island to create rich and diverse habitats for biodiversity.

The island of Antigua is divided into three distinct geological zones. In the south-west is the volcanic zone which rises from 0 to 405 metres above sea level. There slopes are predominately 10° to 20° with steeper slopes which can exceed 30 degrees. The highest mountain range is the Shekerely Mountains with the highest peak being Boggy Peak (recently renamed Mount Obama) which stands at 402 metres high with igneous rocks being the predominant rock type. The Central Plains separate the mountains in the south from the limestone zone in the north and eastern third of Antigua. The Central Plains is traversed by the Bendals and Ayre Creeks, which are the only two semi-permanent water courses in Antigua. There the land rises to a maximum of 152

metres with an average height at 15.2 metres and slopes are less than 10°. In the limestone north and east the elevations range from 15.2 metres to 30.3 metres with several conical hills which can reach 121.3 metres.

Barbuda in comparison is very flat with most of the island about 3 metres above sea level, except in the highlands in the northern end which rise to 37.9 meters. The island is covered primarily by limestone and sand. A principal feature of the Barbuda landscape is the Codrington Lagoon which runs along the western side of the island and separated from the sea by a sand spit. The lagoon comprises two smaller systems and is 11.90 Km long by 3.97 km wide and is home to the second largest colony of frigate birds in the world.

These climatic and geological conditions contribute to a diversity of habitats in which species thrive. There are seven indigenous forest types in Antigua and Barbuda as follows: Evergreen Forest; Semi-evergreen seasonal forest; Deciduous seasonal forest; Thorn woodland; Cactus scrub; Littoral woodland; and Mangrove woodland. From these seven forest types, national inventories have documented 54 vegetation communities of which 16 are listed as rare, 26 as uncommon and 12 as common. The documented flora comprise 1158 species (149 families) of plants; 45 species of ferns (5 families); 4 species of gymnosperms (3 families); and 1109 species of angiosperms (141 families). Approximately 197 species of flowering plants merit special

conservation measures of which 22 are endemic to the Lesser Antilles, one of which *Pectis ericifolia* may be endemic to Barbuda, and 73 are classified as rare.

About 182 species of birds have been recorded for Antigua and Barbuda, with 67% classified as migratory and 33% as year round residents. Antigua and Barbuda is considered an important stopover along the Trans-Atlantic migratory route between North and South America. Approximately 20 of the 60 resident birds are considered endemic to the West Indies sub-region and in some cases restricted to the Lesser Antilles. Inventories have revealed at least two species which are considered endemic sub-species (the Broad-winged Hawk, *Buteo platypterus insulicola*; and a Barbuda endemic sub-species or *Dendroica ruficauda*).

Bats are considered the only native terrestrial mammals in Antigua and Barbuda and seven are known to exist as follows: The common Fruit Bat (*Artibeus jamaicensis*); Rat or Pig faced Bat (*Brachyphylla cavernarum*); Long tongued fruit bat (*Monophyllus plethodon*); Fishing bat (*Noctilio leporinus*); Funnel-eared or Long legged Bat (*Natalus stramineus*); Brazilian Free-tailed Bat (*Tadarida brasiliensis*); and Velvety House Bat (*Molossus molossus*). The island also has several introduced or invasive species of mammals which include: The agouti (*Dasyprocta agouti*); The European Fallow Deer (*Dama dama dama*); The Indiana Mongoose (*Herpestes javanicus*); The domestic rabbit (*Oryctolagus cuniculus*); and the rat (*Rattus rattus* and *R.*

norvegicus). It is surmised that three mammals once found in Antigua and Barbuda are now extinct: The rice rat (*Oryzomys audreyae*); The agouti (*Dasyprocta agouti*); and The Guinea pig (*Cavia porcellus*).

There are also several species of reptiles found on the islands of Antigua and Barbuda. Twenty terrestrial reptile species or sub-species have been documented of which four are thought to be extinct. Examples of reptilian species found include the following: The Red-footed tortoise (*Geochelone carbonaria*); The Green lizard (*Anolis bimaculatus leachi*) which is a sub-species endemic to Antigua and introduced to Barbuda; *A. wattsi wattsi* which is an endemic sub-species which was introduced to Saint Lucia; an endemic ground lizard (*Ameiva griswoldi*) which is common in Barbuda, but found only in selected sites in Antigua; and an endemic subspecies of lizard which has been recorded for Redonda. An endemic species of Racer snake (*Alsophis antiguae*) is found only on Great Bird Island and is one of the rarest snakes in the world. It is widely thought that at least four species of lizard once found on Antigua have become extinct.

In the coastal and marine environment there is also a great diversity of species, typical of tropical islands. It is estimated that in the 1980s approximately 11% of Antigua and Barbuda was covered with wetlands, which included 36 mangroves and the extensive Codrington Lagoon in Barbuda. In 2001, the draft National Physical Development Plan estimated that mangrove

wetlands covered only 3% of the land area in Antigua and 22% in Barbuda. The predominant species of mangroves are *Rhizophora mangle*; *Avicennia germinans*; *Laguncularia recemosa* and *Conocarpus erectus*. In the marine environment there are also seagrass beds and coral reefs. Extensive seagrass beds can be found in Nonsuch Bay, Falmouth Harbour, and Willoughby in Antigua, and in Codrington Lagoon in Barbuda. Coral reefs are found around both islands of Antigua and Barbuda and the estimate coverage varies from a high of 25.4519 km² to a low of 15.820 km². Both systems are thought to be under severe stress.

From the first settlement in 1632 to the end of the colonial period only 7.95% or 2,226 hectares of land from an original area of 27,984 hectares of forest land was left untouched. Recent estimates have placed deforestation at 95 to 99% of the original forest, with the exception of mangroves. The main threats to biodiversity are thought to come from the following anthropocentric and natural forces:

- Unplanned housing, hotel and industrial development;
- Uncontrolled Livestock grazing;
- Unsustainable farming practices;
- Poor Watershed Management
- Fires;

- Pollution;
- Dredging;
- Sewage Disposal;
- Sand Mining;
- Boating Activities;
- Drought; and
- Hurricanes;

LAND DEGRADATION

Land degradation is also seen to be a serious problem for Antigua and Barbuda. According to Antigua and Barbuda's Second National Report to the UNCCD, the results of land degradation have left marks and barriers to the development of the island which include:

- the degradation of vegetation into scrub caused by large scale monoculture;
- the immense damage to the flora caused by free roaming and unmanaged livestock;
- poorly managed agricultural plots which has increased the land's susceptibility to erosion;
- the impacts of hurricanes which has contributed to the

- destruction of natural habitat; and
- the lack of an enforced land management strategy.

It has become obvious that the destruction of biodiversity and continued land degradation will affect the future sustainable development of Antigua and Barbuda. A concerted effort is therefore needed to reverse this trend.

CLIMATE CHANGE

Like many SIDS, Antigua and Barbuda's contribution to global CO₂ emissions is insignificant, but the impacts of global warming will be severe because of its high vulnerability. According to the First National Communications to the UNFCCC the total CO₂ emissions for 1990 and 1994 were 288.3 Gg and 334.40Gg respectively. The greatest proportions came from Residual Fuel Oil (46.9% in 1994) used for thermal electricity production; Gas/Diesel Oil (27.6% in 1994) used for electricity and road vehicular transport; Gasoline (22.1% in 1994) used in vehicular transport mainly, and also in agriculture and fishing. Comparatively smaller emissions were also documented from LPG (3.4% in 1994) used primarily in the residential sector.

The location of the island also makes it highly vulnerable to droughts which at least once per decade and to hurricanes which pose annual threats. In September 1995, Hurricane Luis devastated the country resulting in a 17% decrease in tourist arrivals; 7000 unemployed; damages amounting to US\$128.35

million or 30.49% of GDP. These impacts are common after hurricanes and with the projected increase in the frequency, size and intensity of hurricanes, climate change adaptation strategies have become an imperative and part of national development planning.

In 2010, Antigua and Barbuda pledged to implement the Copenhagen Accord and pledged a target of 25% reduction of its emission by 2020. The base year used was 2020. The Government is yet to put in place the necessary institutional and other arrangements to set the meeting of this target in motion. It is expected with the assistance from the GEF that this will be completed and an approved for implementation in 2012.

RELEVANT ENVIRONMENTAL CONVENTIONS AND TREATIES

Antigua and Barbuda has signed over fourteen MEAs and Environmental Conventions and is in the process of meeting their various requirements. The MEAs which are most relevant to the Rio Process are as follows:

- UN Convention on Biological Diversity (and protocols)
- United Nations Framework Convention on Climate Change (and protocols)
- Kyoto Protocol to the UN Framework Convention on

Climate Change

- UN Convention to Combat Desertification
- Convention on International Trade in Endangered Species (CITES) and its protocols
- Cartagena Protocol on Biosafety to the Convention on Biological Diversity
- Protocol Concerning Specially Protected Areas and Wildlife (SPAW Protocol to the Cartagena Convention)
- The Stockholm Convention on Persistent Organic Pollution and its protocols ;
- Copenhagen Accord

ENVIRONMENT CONCLUSION

The environment in Antigua and Barbuda is under threat and requires a concerted and dedicated effort to reduce impacts and reverse the negative trends. There are positive signs that demonstrated political will in combination with an active Environmental Division as well as other Government departments are addressing these threats, but the Government and people of Antigua and Barbuda require both financial and human resources to continue the ongoing task of improving and maintaining a healthy environment.

POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK – INTEGRATING MEAS AND AGENDA 21

Technological changes and increasing globalization require countries to review and update their legal and judicial framework needed to effectively compete internationally, meet the requirements of multilateral agreements and inspire the population to go beyond compliance toward leadership. Since Johannesburg, the country has been moving towards developing overarching coordinating legislation (instead of repealing current legislation and thus having to deal with the difficult situation of the institutional fallout).

In the area of the Environment the existing legislative framework consists of over forty pieces of legislation, which governs various aspects of this very important aspect of sustainable development. It naturally follows that the institutional arrangements are also fragmented. An additional factor of the design of the legislative system is that the institutional arrangements are such that in several key areas of natural resource usage the legislation is designed to give power to agencies that are the major resource users to regulate themselves. The legislation does not provide any criteria e.g. sustainability or environmental, economic or social protection, by which the resources should be exploited.

To resolve this issue as well as to design a flexible and robust

system that will allow for the integration of new policies both at the national and international level into national plans and programs and more importantly into the national budgetary process, the Government decided not only to keep current legislation and institutions in place but to create a new institution that will be responsible for coordination. The policy and legislative mandates will be integrated into two main documents. These are the National Land Use Plan and its enabling legislation and the National Environmental Management Strategy (NEMS) and its enabling legislation.

POLICY AND LEGISLATIVE INTEGRATION AND MAINSTREAMING – ANTIGUA AND BARBUDA’S APPROACH

The policy for the sustainable development of Antigua and Barbuda comes from two primary documents, the National Physical Development Plan (2011 draft) and the Antigua and Barbuda Environmental Management Strategy and Action Plan (2004 – 2009) NEMS). The former is supported by the Physical Planning Act (2003) and the latter by the new drafted Environment Management Bill which is scheduled to go before the Parliament in 2012. These documents also contain provisions for the integration of MEAs and their protocols.

THE NATIONAL PHYSICAL DEVELOPMENTAL PLAN

The draft National Physical Development Plan lists the

development objectives as follows:

- improving the country’s socio-economic base;
- reforming the public sector;
- sustaining and conserving the country’s biodiversity;
- reducing the national debt/GDP ratio to sustainable levels;
- alleviating poverty;
- reducing vulnerability to national disasters;
- strengthening the relationship between the inhabitants of the island of Antigua and Barbuda; and
- enhancing private and public sector partnerships.

NATIONAL ENVIRONMENTAL MANAGEMENT STRATEGY (NEMS)

These general objectives are further incorporated into the NEMS in a more holistic and specific manner. The NEMS is one requirement from the St. Georges Declaration of Principles for Environmental Sustainability in the OECS that was signed by the Governments of the OECS, including the Government of Antigua and Barbuda, in 2000. The Declaration is a framework document that incorporates principles from the Barbados Plan of Action for SIDS. The NEMS is therefore the adaptation of the regional principles of Rio declaration and other International agreements that has been adapted to the national situation in Antigua and Barbuda.

The NEMS has a vision for Environmental Sustainability that is the inclusion of all citizens in striving:

“to build a nation that treasures the environment and voluntarily acts to ensure the protection, conservation and sustainable use of natural resources” .

This vision is supported by a strategy which is driven by the following 12 principles from the St. George’s Declaration which the GOAB decided were directly relevant to the country:

- Foster the Improvement in the Quality of Life.
- Integrate Social, Economic and Environmental Considerations into National Development Plans, Policies and Programs.
- Improve on Legal and Institutional Frameworks.
- Ensure Meaningful Participation by Civil Society.
- Ensure Meaningful Participation by the Private Sector.
- Use of Economic Instruments for Sustainable Environment Management.
- Foster Broad-Based Environmental Education, Training and Awareness.
- Manage the Impact of Disaster.
- Ensure the Sustainable Use of Natural Resources.
- Protect and Conserve Biological Diversity.
- Manage and Conserve Energy.

- Negotiate and Implement Multi-Lateral Environmental Agreements.

These principles are supported by 12 strategies and several recommended actions and are considered the backbone of environmental sustainability in Antigua and Barbuda and the main policy vehicle in which international agreements, legislation and national policy are reflected.

INSTITUTIONAL COORDINATION AND INTEGRATION

Agencies are encouraged to refer to the various policy documents (which are periodically reviewed for Cabinet approval) when developing their work program. Ministries have instituted an aggressive approach to the development of work programs and for the development of Budgets. These are brought to the Ministry of Finance at the level of the Budget Directors office and the Office of the Director of Planning where the work programs are scrutinized for adherence to the various plans and programs. Once they pass this test their budgets are approved.

This process is quite rigorous and occurs over a period of over five months. At the time of the adoption of the Budget by the Parliament the budget should reflect the activities related to the NEMs and the Land use plan.

SOCIAL-ECONOMIC BACKGROUND

In 2000, 89% of the rural population had access to improved drinking water sources and 95% of the urban population had access to improved drinking water sources. The estimated prevalence rate for 15-49 yr old population is 0.7%. There were 7.5 AIDS incidences per 100,000 population registered since 1998.

In terms of the environment, Antigua and Barbuda's sewage mechanism has begun to suffer to the point where it will have negative implications for public health and the country's natural environment. The coastal zone is also degrading and guarantees an adverse impact on tourism in the near to medium term if the appropriate measures are not taken. Climate change, particularly with regards to sea level rise and increased frequency of natural disasters have high potential for impact.

The first woman elected to the Lower House was sworn in during March 2004. Dr. Jacqui Quinn-Leandro, a media consultant and former News Director of the state owned radio and television service and a new-comer to politics, has made history in the Parliament.[3] In terms of corruption, a commission of inquiry was established to examine allegations of fraud in the handling of Antigua's Medical Benefits Scheme (MBS). The report of the Commission released in August 2002 recommended the Government pay at least 50 per cent of an estimated EC\$ 120

million (US\$44 million) owed to the Scheme. Three Government ministers and the MBS board of directors were dismissed as a result of alleged wrongdoing relating to the MBS, while one other minister tendered his resignation during the inquiry.

SOCIO-ECONOMIC SITUATION ANALYSIS

After growth rates in GDP picked up around 2004, being at 12.2% in 2006 and 6.1 % in 2007. The main contributors to this performance were the construction and tourism sectors, which are also closely linked to the world economy. Antigua and Barbuda was therefore hit hard by the economic recession in 2008-2009.

Real GDP expected to decline by 1.1% in 2010, resulting from further declines in tourism and construction of 2.0 and 0.5 % respectively.

Tourism is Antigua's most important productive sector, and was in 2007 estimated to account for 40 % of all employment, 85 % of foreign exchange earnings, 52 % of total investment and 70 % of GDP (directly and indirectly). Total earnings, and tourist arrivals saw a strong growth in 2007 (up 26.5% from 2006), but has since declined with the economic crisis. For Antigua and Barbuda, economic growth in the medium term will continue to depend on income growth in their tourist markets, the US and UK.

Antigua and Barbuda's agricultural sector accounted for 3.3% of

GDP in 2007, in 2010 this had decreased to between 2.5 and 3 %.[1,2] The fishing sub-sector grew by almost 5 % from 2006 to 2007, reflecting new facilities for fisheries in St.John. The sub-sector contributed almost 52 % of the sector's output. Agricultural production is focused on the domestic market and is further constrained by a shortage in labor. A labour force survey from 2004 found near full employment, at approximately 4% unemployment. The tourism and construction sectors compete with higher wages. Furthermore, local production has not been able to meet local demand all year round.

Antigua's increased reliance on tourism came as a result of the crippling of two vital sectors during the late 1990s: offshore gaming and offshore banking. Antigua's offshore gaming industry employed over 2,000 people and generated over US\$7 million in license fees. As a result of severe legislative pressure from the United States, employment within the sector declined to less than 200 people in 2003. In response, Antigua and Barbuda presented arguments to the WTO panel that showed that the US government's legislation against transactions between US financial institutions and Antigua and Barbuda-based Internet gaming companies was in breach of the US government's obligations under the General Agreement on Trade in Services (GATS). The Disputes Panel at the WTO has recently recommended that the US government bring the offending revenue measures into conformity with US obligations under the GATS but the US has failed to comply with the WTO rulings.

The government of Antigua and Barbuda sought the right to impose retaliatory measures, and was awarded by the WTO the right to target US\$21 million per annum against US intellectual property rights. The Government of Antigua and Barbuda has also had to respond to the continuous repositioning (by the OECD) of regulatory requirements of the offshore financial sector amidst concerns of money laundering during the late 1990s. As a result, the number of offshore banks in Antigua fell from 57 in 1997 to 15 in 2003.

The downturn in economic activity in 2009 had significant impact on fiscal performance. Slowdown in the tourism sector and collapse of the Standford Financial Group, revenues from taxes on economic activity projected to decline more than 20 % in 2009, total revenue from taxes projected at 22% less than original 2009 budget. Projected current account deficit for 2009 is EC\$172.45 million

Since 1997, the Government of Antigua and Barbuda has accumulated a large level of debt and severe fiscal imbalance. Between 1997 and 2001, the Government pursued a bilateral external debt renegotiation strategy in order to reschedule and refinance several loans. Despite these efforts, a sizeable stock of debt remained in arrears. Furthermore, the government obtained a concessionary loan of US\$50 million from the Bolivarian Republic of Venezuela. While this loan, combined with the 2006 PetroCaribe Agreements constituted a lifeline during the

recession, they further increased the public debt.

The current account deficit widened to \$172.46 in 2009 after years of a declining deficit. The Minister of Finance and Economy announced that the largest share of the recurrent expenditure will go towards servicing Public Debt. Debt service payments were at \$214,506,424 for 2010. Data on fiscal performance show that over a 35 year period, not once did the government record an overall surplus. IMF concluded that the effects of the financial crisis on the Caribbean will likely persist into 2010 because tourism depends on employment conditions in advanced economies, which typically lag output recoveries.

The Government of Antigua and Barbuda will also need to improve its institutional capacity to improve its fiscal situation as well as to collect, record and analyze economic data. As a result of poor planning, the government has not implemented any suggestions made by IFIs to improve its fiscal situation and continues to accumulate arrears on external debt. Additionally, the Ministry of Finance has not been able to effectively monitor ongoing projects. In general, capital estimates include large numbers of projects that are not implemented, which makes it difficult to project spending based on the annual budget.

Tourism, construction, agriculture and fisheries, and Small and Medium Enterprises will be the priority sectors over the next five years and will be the focus of considerable effort by the

government to harness domestic and external resources to support economic growth.

INTERNATIONAL ASSISTANCE FOR DEVELOPMENT

Antigua signed and ratified the Economic Partnership Agreement (EPA) between the CARIFORUM states and the European Union (EU) in 2008 and receives extensive assistance from the EU. There is also considerable cooperation with Cuba, China and the Bolivarian Republic of Venezuela.

III. Key Challenges

- Economic diversification
- Financial Management, Public Indebtedness and Tax Reform
- Poverty reduction
- Environmental degradation
- Alternative energy for economic security and GHG mitigation.

HEALTH

Antigua and Barbuda is divided into six (6) health districts, each of which is served by designated clinics while more specialized medical services are provided by the new 185 bed Mount St. John's Medical Centre (MSJMC) and several private clinics. The affiliation of the American University of Antigua (AUA) with MSJMC effectively makes this facility a teaching hospital that further augments its range of services.

Photo 1: Mount St. John's Medical Centre



The situation in Barbuda where the Hannah Thomas Hospital lacks laboratory facilities and can only deal with minor to moderate surgeries. Consequently, patients with more serious conditions are airlifted to Antigua.

In addition to dealing with health problems, the Government operates a preventive medicine programs and promotes healthy lifestyles.

EDUCATION

Education facilities are widely available in Antigua and Barbuda at the pre-primary, primary, and secondary by both the public and private sectors. In addition, the Antigua State College, the Antigua and Barbuda Institute of Technology, the University of the West Indies Open Campus , the American University of Antigua (AUA), as well as, numerous institutions that provide specialized vocational training are available for post-secondary studies.

While the distribution of schools throughout the country appears to be adequate there are problems with overcrowding in urban facilities. Further, many buildings have structural deficiencies, some of which were caused by recent hurricanes.

A further concern is the number of students who do not complete secondary school. Data from the 2001 census indicates that among residents 15 years of age and over, 96% have completed

primary standard (4-6 year), while 67.3% completed secondary school, 24.2% pre-university, and 9% university (CSO, 2001). Greater attention to providing the facilities and programs that will encourage students to continue to the secondary and tertiary education levels is needed if the country is to compete in the knowledge economy.

COMMUNITY FACILITIES

Antigua and Barbuda is served by a network of community services that includes post offices, community centres, libraries, churches, cemeteries, sports and cultural facilities. The most equipped of these facilities are concentrated in St. John's or in Codrington where they are intended to serve Antigua and Barbuda respectively. The primary exception is community centres, which are distributed to a large extent to reflect the distribution of population.

Sports and recreation facilities and playgrounds are provided throughout the country. Many villages have hard courts that are used for basketball, netball or volleyball and the larger settlements are provided with cricket and/or football fields. Additionally, there are six (6) national sporting grounds with basketball, netball, volleyball, golfing and track and field facilities. Many settlements however, including many new residential developments, do not have public recreation facilities and there is a noticeable lack of children's playgrounds in communities throughout the country.

CIVIL SOCIETY AND GOVERNANCE

The NGO and CBO network in Antigua and Barbuda is relatively underdeveloped. In a survey undertaken by the Caribbean Sustainable Economic Development Network, UWI in 2004, 20 Civil Society Organizations were identified. Of that 20, 15 were classified as NGOs and five as CBOs. The primary challenges of the CSO sector in Antigua and Barbuda include the following:

- there are too few well managed CSOs to provide a critical mass which can shape the national agenda;
- the existing CSOs lack financial resources to cover their administrative cost. Most depend wholly on volunteer assistance to keep their doors open.
- there appears to be no effective national NGO network to help the weak to become strong, to share resources and to build up consensus on national issues;
- most of the NGOs and CBOs need significant assistance in organizational development and project development; and
- there is a common complaint that the level of volunteerism is on the decline.

There appears to be a niche for significant NGO/CBO development in the island if communities can break away from their dependence on Government.

POVERTY PROFILE

The poverty situation in Antigua and Barbuda is of great concern and worry as in many other SIDS. In a 1994 survey completed by PAHO, the poverty rate was estimated at 12%, but a more recent study has shown the rate to be over 18% while the indigent rate is close to 4%. This situation is even bleaker when the vulnerability line is set at 125% of the poverty line, which places an additional 10% of the population at risk. The vulnerable population or those who are likely to fall below the poverty line with the slightest economic mishap is estimated to be over 28% of the population.

The main reasons for poverty vary from the low level of certification to the large number of migrants from nearby islands of Montserrat, Dominica and other CARICOM countries. This influx has increased competition in the workplace and placed a downward push on wages. It is estimated that over 52% of the population has no form of certification; 21% of households have no adults employed; and 27% of households have less than one in two persons employed in the household. This situation has led to a growing informal sector, incidence of transactional sex among adults, parents with two jobs to survive, a growing drug trade, abandoned children and a level of delinquency, and abandoned elderly.

Poverty also manifests itself in inequity in the society. It is estimated that the poorest quintile consumes less than 5% of total

consumption while the richest quintile consumes over 56% of total consumption. Inequities are also present in housing and sanitary conditions. Most of the poor live in wooden houses and it is estimated that 20% of the population still use pit toilets and 21% depend on stand pipes for water.

Spatial differentials in poverty are also evident in Antigua and Barbuda. The poorest districts are St. John's City (22%) and St. John's rural (18%); followed by St. Philip (26%); St. Paul (16%); St. Peter (15%); St. Mary (14%); St. George (12%); and Barbuda (11%).

The poverty rate is lowest in Barbuda because of a situation where most persons are employed by the Barbuda Council and there is a thriving trade in sand mining. Both these activities make it impossible for Barbuda to attain sustainable development. In the first case, the Government with its growing debt cannot continue to maintain this level of employment, and in second case, the beaches which can potentially be the life blood of Barbuda are being destroyed, creating a looming environmental disaster.

The Government of Antigua and Barbuda is developing its social safety net but the burden of the fallout of the international economic crisis and rising debt that is over 100% of GDP makes the situation worrying. It is obvious that major social and economic transformation is required.

GENDER EQUITY

There is a deficit of disaggregated data on the gender situation in Antigua and Barbuda and therefore the full picture is difficult to ascertain. A recent poverty study has estimated that 51.6% of households are headed by men and 48.4% by women. In the poorest quintile the figures are 52.2% and 47.8% respectively. The data is not explicit on whether these are single person headed households or households with both parents present.

In the education arena because of the unavailability of accessible data we are left to surmise that the trends noted in other Caribbean islands may be the same in Antigua and Barbuda. That is, there are many more women pursuing higher levels of education than men and women have a higher incidence of completing school and getting certified than men. If this trend is accurate, then the women are laying a platform for their family's economic security in the future.

In the area of political power, only one of the 17 seats in House of Representatives in the Parliament is held by a woman. This does not necessarily mean that women are discriminated against; it is more a factor of the nature of politics and the reluctance of women to expose their families to the stress that this can cause. It is expected that as the country's political culture matures this will change.

Though Antigua and Barbuda has signed the International Convention on the Elimination of All Forms of Discrimination Against Women (1989) and the Convention on the Rights of the Child (1993) there is still much to be achieved. The Department of Gender Affairs like many other Government departments is understaffed and underfunded and crime against women and children is of concern. From the available data, one can deduce that women are still marginalised, suffer from a higher rate of unemployment, and have a higher tendency to be poor than men. In this scenario the youth also suffer from a high poverty rate.

THE ROLE OF INTERNATIONAL SUPPORT

There are several bi-laterals and multilateral donors in the Caribbean. The bi-laterals include USAID; DFID; and the Canadian, German, British and Japanese Embassies. By far the largest bi-lateral funder appears to be the European Union whose funding like many others is dedicated to addressing poverty and building economic resilience. The multilaterals include IICA/OAS; UNDP and the other UN agencies; Oxfam; and foundations such as Mac Arthur Foundation. The Italian Government is also currently looking to develop programs which focus on youth entrepreneurship. Another multilateral source is the Caribbean Development Bank which can assist with technical assistance and in certain instances grants.

The major source of external funds for environmental projects is the Global Environmental Facility (GEF). The government is looking towards the operationalization of the Green Climate Fund. This fund will be important to the Governments that want to proceed with a Low Carbon approach to their economies. In most SIDS this normally means reduction in the use of Fossil fuel.

AGRICULTURE

Antigua and Barbuda's agriculture can be described as vibrant, modern, and to some extent prosperous and competitive. The Government's overall goal in the agricultural sector is to "improve Antigua and Barbuda's food security and reduce poverty". To this end a policy was developed to guide the development of this important sector. The policy was formulated to ensure that the capability of the agricultural sector's strategic role in national development is sustained and enhanced in light of the new and emerging challenges facing agricultural development. This is because global imperatives require agriculture to become internationally competitive; unfortunately, not all areas in agriculture in Antigua and Barbuda can realistically become competitive. Thus, the policy will focus on new approaches to increase productivity and competitiveness, deepen linkages with other sectors, venture into new frontier areas as well as conserve and utilize natural resources on a sustainable basis.

Presently, the Agriculture Sector actively contributes only approximately 3-4% to overall Gross Domestic Product (GDP) in Antigua and Barbuda. During and throughout the ABNAP 2012 period and beyond, it is anticipated that the sector will achieve a growth rate of 2.1 per cent per annum. Thus, the contribution of the agricultural sector to Gross Domestic Product (GDP) is expected further increase from its present 3-4% base (+2.1% increase) to 5-6% from the end of 2012 and beyond. New sources

of growth are expected to emerge in agriculture resulting from various initiatives to promote new products and emerging industries such as agroforestry, biotechnology products, and specialty natural products.

At the heart of the policy is the fundamental premise that agricultural land must be protected in Antigua and Barbuda and so the policy embraces Antigua and Barbuda's Agricultural Land Use Policy as part of the issue to be addressed in the National Land Use policy; the purpose of the Antigua and Barbuda Agricultural Land Use Policy is to foster and facilitate rapid development of the island's agricultural land resource, while ensuring the continued productive capacity of the island's agricultural land resource and guaranteed economic profitability of all producers; the agricultural land use policy considers the location, size, function and growth of existing and new settlements and their spatial and functional relationships and this policy provides a framework for the provision of physical and social infrastructure and opportunities for economic activity, in accordance with a comprehensive settlement strategy. In addition, this policy also articulates a sustainable development strategy that allocates the most appropriate land for various activities and in so doing considers the capacity of such land to sustain development in the long term, that is, from 2010 and beyond, and the need to provide for economic growth, without degrading or damaging the island's scarce and fragile land resource base.

Ultimately, the policy aims to generate via work programs and legislation (Physical development Plan and legislation) the enabling and supportive measures as well as a sustainable environment to promote growth in the agricultural sector. Concerns for the environment at both the island's domestic and global levels require more innovative and efficient agricultural and forestry practices for the sustainable development of the sector. Hence, the policies and strategies formulated will continue to emphasize productivity and market driven growth for Antigua and Barbuda.

AGRICULTURE POLICY OBJECTIVES

The overriding objective of agriculture policy which was dubbed ABNAP 2012, is two-fold: first it is the maximization of income through the optimal utilization of resources in the sector and, second it is the optimal use of scarce and fragile land in a sustainable manner that allocates the most appropriate land for various activities and in so doing this is to ensure that the capacity of such land will sustain development in the long term, that is, 2012 and beyond without degrading or damaging Antigua and Barbuda's scarce and fragile land resource base.

Specifically the objectives of ABNAP 2012 are:

1. To enhance food security; which is founded on food availability, food access, and utilization of food

through adequate diet, clean water, sanitation, and health care to attain a state of nutritional well being so that all physiological needs are satisfied.

2. To reduce poverty;
3. To increase productivity and competitiveness in the sector;
4. To deepen linkages with other sectors such as Tourism;
5. To create new sources of growth for the sector; and
6. To conserve and utilize scarce and fragile existing natural resources on a sustainable basis, specifically – land and water, for water users. (Other notable resources are the environment, fisheries, and coastal zones).

STRATEGIC APPROACHES AND POLICY THRUSTS

Increasingly scarce resources including land availability requires a strategy that optimizes resource usage for agricultural and forestry development. Towards this end, an agroforestry strategy to integrate agriculture and forestry as mutually compatible and complementary and therefore provides a scope for joint development that can bring about mutual benefits. The approach will bring about a larger productive base for agriculture and forestry and allow for a wider range of agroforestry enterprise

mix, optimize land resource utilization, particularly land and enhance the income generating potential of agroforestry investments. These approaches together with the policy thrusts will provide the enabling environment to sustain and enhance the growth of agricultural sector and become more globally competitive. Thus, the policy thrusts of the ABNAP are:

Meeting the national food requirement

The achievement of this is founded on food availability, food access, and utilization of food through adequate diet, clean water, sanitation, and health care to attain a state of nutritional well being so that all physiological needs are satisfied. The MOA is committed to implementing policies to support National legislation and International agreements with Food Safety Implications including - Pesticide and Toxic Chemicals Act; - Plant Protection Act; and the Animal Health and Food Safety Act.

Enhancing competitiveness and profitability in agriculture and forestry

The competitiveness of the sector will be enhanced through productivity improvement, developing and strengthening markets, removal of market and trade distorting measures, formulation and implementation of high quality and safety standards and selective

development of agricultural and forestry enterprises based on present and potential competitive strengths. Further strengthening of competitiveness and profitability will be achieved through the development of new and innovative products and capitalizing on the product value chain that will generate sources of future growth and create new higher value-added industries.

Adopting Sustainable Development

Sustainable management and utilization of resources will be the guiding principle in pursuing agricultural and forestry development. Rules, regulations and incentives will be strengthened to encourage environment-friendly agricultural and forestry practices and to minimize the negative impact of these activities on the environment.

POLICY DIRECTIVES FOR THE DEVELOPMENT OF PRODUCT GROUPS

In Antigua and Barbuda the agriculture is approached from a food production and security perspective. The policy therefore looked at fisheries, livestock, agro-tourism and agro-production.

LIVESTOCK

Smallholder livestock activities with potential will continue to be transformed into larger commercial operations to improve efficiency. Efforts will be undertaken to strengthen the linkages of these operations with suppliers, processors and marketers to enhance further the vertical and horizontal integration of the industry.

New Products and future industry group

This group consists of new and emerging products in agriculture and forestry which have high potential to be further nurtured and developed. The products in this group include biotechnological products, specialty natural products and agrotourism products. For the development of the new products and future industries, the strategic directions are:

Agri-biotechnology and specialty natural products

The economic foundation for the development of agri-biotechnology and specialty natural products industries will be created. An incentive framework will be established to accelerate the creation and development of these unique industries. This includes the Ministry of Agriculture (MOA) identifying indigenous and locally adapted organisms and germplasm for Intellectual Property Rights protection. Also, the MOA will institute and support activities that ensure the sustainable

management of the country's natural resources, including but not limited to its biodiversity particularly endangered plant and animal species, land and marine-based ecosystems and water sources; and collaboration will be undertaken with agencies responsible for energy on matters relating to emerging technologies in biofuel production. In addition, the MOA will provide current technology and the relevant support services to facilitate trade in agricultural products which meet the required production and other international relevant standards as well as the requirements of bilateral, regional, and international agreements and protocols of which Antigua and Barbuda is party to.

Agrotourism

Agrotourism, an activity that maximizes the use of farm settings and the environment with local hospitality will be promoted. In Antigua and Barbuda, particularly in the urban areas of the island, there are agricultural areas and activities have which have many tourist attractions that can form the basis of destination development for tourists. This is a unique linkage cross-sectorally between the agriculture sector and the tourism sector respectively. Hence, these areas will be developed into unique destinations for the enjoyment, relaxation and education of tourists to Antigua and Barbuda's unique agricultural heritage and history. In addition, the necessary national parks and marine protected areas will also be displayed for the attraction of tourists providing a unique

insight also into Antigua and Barbuda's agricultural heritage and biodiversity.

FISHERIES

According to the Antigua and Barbuda Fisheries Development Plan 2006 – 2010¹, Antigua and Barbuda established itself as an archipelagic state in 1982 with a 12 nautical mile territorial sea, an Exclusive Economic Zone (EEZ) and a Fishery Zone of 200 nautical miles. The full extent of the EEZ is unknown although it is estimated to be about 110,071 km² with a shelf area of about 3,568 km²². This includes the Antigua and Barbuda shelf (3,400 km²), South Bank (40 km²), a section of Anguilla shelf (7 km²), Redonda shelf (98 km²), Havers Shoal (5 km²) and a section of St. Christopher and Nevis shelf (18 km²). This relatively large sea space is seen by many to offer vast potential for fisheries development especially for the migratory species. There are areas of the Redonda & island Shelf that are not frequently fished by vessels from Antigua and Barbuda, due to, some extent, distance from Antigua and to the perceived prevalence of ciguatoxic fishes found in the area.

¹(Appleton, Horsford, & James, 2005)

The Antigua and Barbuda shelf that both islands emerge from is one of the largest in the Eastern Caribbean. Depths between the islands ranges from 27 to 30 metres, providing the ideal terrain for demersal resources such as reef fish, Caribbean spiny lobster (*Panulirusargus*) and Queen conch (*Strombusgigas*).

The coastline of Antigua and Barbuda is about 289 km in length³. That of Antigua is highly indented with numerous islands, creeks, inlets, associated sand bars and wetlands. A large portion of the east, north and south coasts of both Antigua and Barbuda are protected by fringing reefs. Large areas of sandy bottom exist in relatively shallow water, mainly along the west coast of the islands. In Barbuda, the Codrington Lagoon is bordered by mangroves and sand ridges. This area is of significant importance to the fisheries and wildlife (particularly frigate birds) of Barbuda. The Codrington Lagoon is the sole designated Ramsar site for Antigua and Barbuda.

Apart from the Codrington Lagoon, several coastal and marine areas have been designated as protected areas. Antigua and Barbuda has also initiated the establishment of a System of Protected Areas.

The Fishery Resource Base

The coastal and marine areas of Antigua and Barbuda comprise a variety of ecosystems (mangroves, coral reefs, sea grass beds and beaches) with natural resources including fisheries resources. The nature and extent of the coastal and marine areas are primary determinants of types, amount and to some extent the distribution of the two main categories of fisheries (demersals and pelagics) in Antigua and Barbuda. Fisheries production in Antigua and Barbuda is considered to be small scale (Horsford, I., 2008; James P. A., 2008). The demersal fishery (mainly lobster, conch and a large variety of reef fish species) is well developed while the pelagic fishery may be considered underdeveloped.

Demersal resources of the Antigua and Barbuda shelf, including reef fish species, conch and lobster, are closely associated with coral reefs, mangroves and sea grasses which are either adult habitats or nursery areas for juveniles (GOAB/UNEP, 1997). The pelagic resources which are highly mobile, generally migratory and seasonal are of less importance to the fisheries of Antigua and Barbuda mainly because of associated socio-economic factors

³Earthtrends 2003.<http://earthtrends.wri.org>

such as increased operational cost⁴ and a cultural tradition of harvesting the demersals⁵.

The demersal resources include: the Caribbean spiny lobster (*Panulirus argus*), the queen conch (*Strombus gigas*), shallow reef fishes, and deep reef fishes. The pelagic resources are divided into small coastal pelagics found mainly nearshore or around the coast and larger coastal pelagics at the shelf edge and in the oceanic regions of the EEZ. These resource types and the fisheries for them have been summarised in the Antigua and Barbuda Fisheries Management Plan (Appleton, Horsford, & James, 2005). Lobster, conch and a variety of finfishes form the major landings. Most of the lobster is exported to the French West Indian islands, particularly Guadeloupe⁶.

CURRENT STRESSES IN THE FISHERIES SECTOR – ESPECIALLY ADAPTATION TO CLIMATE CHANGE

Although the sector is relatively healthy there are significant threats to the basic biodiversity base of the fisheries. These include:

- Pressure from fishing and other marine activities
- Coastal development, particularly the development of hotels and marinas
- Pollution both from land-based and marine sources.
- Fluctuations within the global economy and market conditions.

Most scientists agree that corals' ability to adapt to shifting environmental conditions resulting from climate change depends on the severity of other human stresses, such as fishing pressure, coastal development and land-based sources of pollution. Socio-economic conditions within the sector will provide the framework to determine the stresses on the natural environment.

⁴ Expansive shelf area force fishers to travel longer distances to catch these species, especially large pelagics.

⁵ Householders generally prefer 'plate size' fish.

⁶ Fisheries Division Statistics

Box 1. Vulnerability and Adaptive Capacity Issues within the Fisheries Sector

- *Observed and projected negative impacts on the sector due mainly to stresses on critical habitats such as coral reefs, mangroves and sea grasses*
- *Linkage between ocean warming, the proliferation of harmful algal blooms and various diseases*
- *Dependence of fisher folk on the sector for employment, revenue generation and human well-being*
- *In Antigua and Barbuda, many fishers reside and operate in vulnerable, low-lying coastal areas which exposes their physical assets (e.g. boats, gear, homes) to climate-related events such as hurricanes, storm surge and sea-level rise*
- *While the fisheries sector has demonstrated considerable resilience to climate variability in the past, factors such as lack of consistent governmental control, access to capital on reasonable terms, weak fisher folk organizations and consequently low bargaining power will compromise adaptation capacity in the future*
- *Lack of insurance and other institutional support to enable the sector to rebound in the aftermath of extreme events, which are projected to become more frequent and/or intense in the future.*

Adapted from Nurse,(2008)

The fisheries sector has particular significance for small island states since fish, as a primary protein source, is one of the world's most widely traded foodstuffs and a key export earnings generator for many poorer countries (APO, 2008). Some 51% of the contribution of agriculture to the GDP of Antigua and Barbuda is derived from the fisheries sector (Horsford, 2004). Fishers are particularly vulnerable to the direct and indirect impacts of predicted climatic changes, including changes in physical environments and ecosystems, fish stocks, infrastructure, fishing operations and livelihoods (FAO, 2008; Allison, et al., 2009). Additionally, fishing households in general have a high occupational risk in that they are prone to very high levels of vulnerability closely related to their activity (fishing) and associated livelihoods (Béné, 2006). This may be even more severe for part time fishers and occasional workers within the fisheries sector.

ENERGY

Antigua and Barbuda is almost completely dependent on imported petroleum to generate electricity and provide transportation fuel. The Antigua Public Utilities Authority (APUA) is a state owned entity which has been mandated with legislative responsibility to provide electricity, water and telephone. The statutory instrument also gives the APUA the authority to allow persons or entities to generate their own power. The APUA generates most of the electricity at four (4) sites in Antigua - Crabbs, Cassada Gardens,

Friars Hill Road and the West Indies Oil Company compound - and one (1) in Barbuda. Their total capacity is approximately 36.1 MW. Recently, the transmission and distribution system has been upgraded to provide a 69Kv distribution ring with 69 / 11Kv⁷ transformer sub-stations. The public grid reaches over 95% of Antigua's population, with similar coverage in Barbuda⁸. The residential sector is estimated to be the largest consumer of electricity, accounting for approximately 40% of sales⁹. Many commercial enterprises, hotels, apartment complexes and private homes have generators to supply their own electricity during outages. APUA estimates a load increase of 10% per annum for the foreseeable future.

As Antigua and Barbuda has on average 268 hours of sunlight per month, solar energy has considerable potential and, in fact, is currently widely used to heat water. In addition, wind energy, which was extensively used in colonial times as evidenced with remnants of windmills throughout the country, may also be harnessed. The feasibility of both forms of energy should be

further explored in the interest of lowering GHG¹⁰ emissions and reducing outward foreign exchange flows.

LEGAL AND REGULATORY FRAMEWORK

As part of any green economy initiative there is a need for the reduction in the use of fossil fuel. In order to achieve the required transition to the use of renewable energy or less carbon intensive energy that contribute towards a sustainable energy future, Antigua and Barbuda must define and implement a legal and regulatory framework. The hallmark of this transition will be the provision of the following:

- Formulating appropriate regulations at the manufacturer, importer, and distributor levels to ensure use of energy efficient appliances.
- Adoption and adjustment of international standards and best practices for appliances;
- Provide financial and fiscal incentives that allow the market competitive access

⁷ Kilovolt (Kv)

⁸ NPDP, 2001

⁹ Interview with the APUA (2011)

¹⁰ Second National Communication for Greenhouse gases (GHG)

INSTITUTIONAL FRAMEWORK

In 2010 the government formed the energy Unit with the aim of developing and National energy policy and an associated plan (NEP). The Unit was formed to assist with the coordination of all actors within the economy and to provide the government with a coherent low carbon way forward. The key players in the implementation of this and other uses of energy and their roles and responsibilities are described below.

- **The Energy Unit** under the Office of the Prime Ministry will be responsible for the overall implementation of the other Energy-Uses Policy and will provide expert advice and guidance with respect to all Other Energy-Uses initiatives.
- **The Office of the Prime Minister** has portfolio responsibility for Other Energy-Uses, and will have responsibility for the development and implementation of Other Energy-Uses initiatives, including economic performance.
- **The Environment Division** (Ministry of Agriculture, Housing and Environment) will provide advice and guidance on the environmental impacts of all Other Energy-Uses programs. The Division will facilitate proposals for consideration of projects to benefit from the Clean Development Mechanism.

- **The Ministry of Finance and the Economy** will be responsible for establishing any financial or tax incentives;
- Local Education Institutions will play a key role in keeping abreast of research in Other Uses of Energy and the linkages between their uses and impact on human health and the environment, and thus ensuring environmental sustainability.

DEVELOPMENT OF THE SUSTAINABLE ENERGY ACTION PLAN (SEAP)

One of the key priority areas identified during the scoping exercise for the National Energy Plan is the need for an action plan on sustainable energy consumption and generation. The ultimate challenge for sustainable energy consumption and generation is, therefore, to satisfy the appropriate level of energy-related needs of every human being by using a variety of technologies and fuels tailored to local conditions rather than merely increasing energy supplies, while keeping the overall cost and environmental damage as low as possible.

The Sustainable Energy Action Plan is intended to serve as a road map for the energy future in Antigua and Barbuda from 2012 until 2030. The SEAP contains short (1-5 years), medium (5-10 years), and long (10-20 years) term actions designed to enhance the implementation of the policies and goals of Antigua and Barbuda'

National Energy Policy (NEP). These actions foster to energy conservation, energy efficiency, and diversification of energy source and energy use needed for sustainable energy consumption and generation.

The strategies identified to meet the above are as follows:

- Strategy 1: Energy Conservation and Energy Efficiency
- Strategy 2: Renewable Energy Development
- Strategy 3: Education and Awareness

In order to implement the aforementioned SEAP is necessary to define for each strategy the following points:

- Indicate the target “quotas” to be accomplished
- Identify the specific actions to be implemented
- Identify the responsible agency for each action
- Identify and choose appropriate indicators to measure the outputs of each project
- Assigned the appropriate priority in terms of short, medium and long terms
- Specify cost and potential sources of funds for each project

The Energy Unit will be in charge to create a first draft of the SEAP based on the above-mentioned strategies and points.

Roles and Responsibilities of the Energy Unit

The Energy Unit was mandated by the Cabinet to take on the following responsibilities:

- To develop with consultation a SEAP for submission and approval of the Cabinet;
- To lay down rules and conditions for prescribing the price of energy in accordance with the NEP, the SEAP and APUA;
- To monitor, evaluate, and act as the focal point for coordinating and supporting the implementation of energy policies, management and development plans of the country.
- To facilitate coordination among all key stakeholders responsible for energy matters, to ensure compliance of their operations with the NEP and the SEAP;
- To monitor and evaluate the results of the implementation of the NEP and the SEAP, and make adjustment measures if required;
- To compile energy balance, for analysis of the energy supply and consumption trends and evaluate the anticipatory impact for the purpose of preparing the proposals in respect of the NEP and the SEAP,
- To perform other functions as entrusted by the Prime Minister or the Cabinet.

CLIMATE CHANGE

This Second National Communication for Antigua and Barbuda, which was submitted in the latter half of 2011, reflects the current climate change situation impacting Antigua and Barbuda and its projected impact in the future. It also details the impact climate change will have on climate dependent and climate sensitive economic sectors. This report also details the implementation of Antigua and Barbuda's obligations under the UNFCCC, including the development of a climate change database, implementation of monitoring programs, research programs and economic instruments and policies as well as development of an inventory of GHG.

Clearly Antigua and Barbuda's survival depends on its natural resources and climatic condition. Without appropriate adaptation, climate change could have an extremely harmful impact on the sustainability of the development process with the coastal zone being most vulnerable. The following are the projected changes to Antigua and Barbuda's climate due to global warming.

1. There is evidence to suggest that the climate of Antigua and Barbuda is changing. Both maximum and minimum temperatures have increased in the recent past.

2. The warming trend is expected to continue. The country is projected to be 1 to 3.5 degrees warmer by the end of the century.
3. Winter months will see marginally larger increases in temperature than summer months.
4. The frequency of very hot days will increase, while very cool nights will decrease.
5. There is likelihood that the country will be drier (in the mean) by the end of the century.
6. Climate change will likely make the dry periods early in the year and in June/July drier.
7. The seasonality of Antigua and Barbuda will be largely unchanged. The cooler (with respect to late season temperatures) dry early months and wet hotter late months will still prevail.
8. Hurricane intensity is likely to increase but not necessarily hurricane frequency.
9. Caribbean Sea levels are projected to rise by up to 0.5 m by the end of the century.

Climate Parameter	Predicted change for the Insular Caribbean ¹¹	Predicted change for Antigua and Barbuda ¹²
Air temperature	Increase of 1.8 - 4.0°C by 2099	Increase of 1.3°C by the 2050s Increase of 1 - 3.5°C by the end of the century
Sea surface temperature	~1.7°C by the end of the century	Up to 2°C by the end of the century
Sea level rise	Rise of 0.18 – 0.59 m by 2099	Rise of 0.24 m by 2050 ¹³
Carbon dioxide	Reduction in pH of the oceans by 0.14 - 0.35 units by 2099	An increase in carbon dioxide emissions through 2050.
Hurricanes	More intense with larger peak wind speeds and heavier precipitation	More intense with larger peak wind speeds and heavier precipitation. (not necessarily increased frequency)
Precipitation	Unclear	Drier (in the mean) by the end of the century

Table 1 Climate Projections for Antigua and Barbuda and the Insular Caribbean

Depending on local conditions, climate change will have varying effects on the coastal areas. Box 2 summarizes the major impacts of climate change. The major impacts are more dominant within the ecological environment.

Box 2 A summary of the impacts of climate change on the coastal zone in Antigua and Barbuda includes:

- *Destruction of /damage to critical habitats (beaches, mangroves, sea grass beds, coral reefs)*
- Climate change impacts may contribute directly to overfishing, pollution, and loss of wetlands and nurseries
- Increased coral bleaching as a result of a 2°C increase sea surface temperature by 2099
- Sea-level change can cause loss of coastal wetlands and land area in general
- Destruction to coastal infrastructure, loss of lives and property
- Changes in coastal pollutants will occur with changes in precipitation and runoff
- *In extreme conditions, the possible loss of a livelihood, and*
- General economic losses to the country

¹¹Based on global predictions from IPCC WGI, 2007

¹²Climate Studies Group, Mona. University of the West Indies

¹³Estimate for the Caribbean

ADAPTATION AND MITIGATION MEASURES TO CLIMATE CHANGE

Antigua and Barbuda has taken several measures to adapt to the impacts of and mitigate climate change. The fundamental pillars of mitigation are based on energy use, energy efficiency and utilisation of renewable energy. Adaptation strategies engage a variety of mechanisms to reduce loss and damage from disasters made worse by climate change, including disaster risk management, insurance and other compensatory schemes, building and development codes enforcement, and water storage, supply (ground water and desalination) and efficiency in usage, including irrigation technology and public education. Recent works included the use of natural ecosystems to adapt to extreme weather events such as flooding.

Regional and international negotiations to put in place a comprehensive GHG reduction treaty is a critical and perhaps the most potent component of this micro island state mitigation and adaptation efforts. In this regard and as an integral member of the international climate change negotiation process, Antigua And Barbuda joins forces with other nation states that support inter alia, the following climate change negotiations standards:

- long term stabilisation of GHG below 350ppm CO₂ equivalent levels,

- global average surface temperature increase to be limited to levels below 1.5C above pre industrial levels,
- GHG emissions peak by 2015 then decline,
- reducing GHG emissions by greater than 85% below 1990 levels by 2050;
- Annex I parties to UNFCCC reduce collective GHG emissions by 45% below 1990 levels by 2050, and
- providing SIDS with adequate new, predictable, with direct access to grant financing and technology transfer to assist in fast-tracking their mitigation and adaptation efforts

GREEN HOUSE GAS INVENTORY

The Government of Antigua and Barbuda, a Non-Annex 1 party to the United Nations Framework Convention on Climate Change (UNFCCC) submitted a greenhouse gas (GHG) emissions inventory for the year 1990 as a component of its Initial National Communication to the UNFCCC. This report presents the GHG emissions inventory for the year 2000 which will be included in Antigua and Barbuda's Second National Communication in compliance with Articles 4 and 12 of the UNFCCC.

Antigua and Barbuda is not a producer of primary fossil fuels. Imported fossil fuels are used primarily for electricity generation

and transport. The industrial sector is minimal and made up primarily of the food and beverage industry and asphalt production. In the agriculture sector, GHG emission sources are limited to domestic livestock and agricultural soils sub sectors. 22% of the country is covered by secondary forest. The original forests were cleared to establish the sugar plantations during the early colonial settlement of the islands. Additionally, this island state is relatively dry and flat, therefore, lush tropical rainforests are not common. In the waste sector, GHG emissions are limited to methane from solid waste disposal sites and to indirect nitrous oxide emissions from human waste.

A summary of the GHG inventory for 2000 is shown in Table 2. National emissions in 2000 were carbon dioxide 383 Gg, methane 6.60 Gg, nitrous oxide 0.16 Gg and hydro fluorocarbons 0.0037 Gg. The uncertainty in the overall estimate was 40%.

Gaps in the activity data required for the inventory arose mainly because records were not maintained for sufficient periods and in some cases because the statistics were not compiled. This is especially true for the land use and land use change sectors. Agencies are now aware of the shortfalls and are prepared to take steps to establish record keeping protocols and to compile and maintain records.

Table 2 SUMMARY OF ANTIGUA & BARBUDA GREENHOUSE GAS EMISSIONS AND REMOVALS (Gg) FOR 2000

GHG SOURCE AND SINK CATEGORIES	CO ₂	CO ₂	CH ₄	N ₂ O	NO _x	CO	NMVOC	SO ₂	HFCs
	Emissions	Removals							
Total National Emissions and Removals	383	0	6.6	0.159	2.3	11.9	2.7	2.8	0.0037
1 Energy (Reference Approach)	412								
(Sectoral Approach)	371		0	0.003	2.3	11.9	2.3	2.8	
A Fuel Combustion	371		0	0.003	2.3	11.9	2.2		
B Fugitive Emissions from Fuels	0		0		0.0	0.0	0.0	0.0	
2 Industrial Processes	0		0.0	0.000	0.0	0.0	0.4	0.0	0.0037
3 Solvent and Other Product Use	0			0.000			0.0		

4 Agriculture			1.1	0.152	0.0	0.0			
5 Land-Use Change & Forestry	11	n/a	0.0	0.000	0.0	0.0			
6 Waste			5.4	0.004					
7 Other (None)	0	0	0.0	0.000	0.0	0.0	0.0	0.0	
Memo Items:									
International Bunkers	199		0.0	0.006	0.7	0.0	0.0	0.0	
Aviation	199		0	0	0.7	0	0	0	
Marine	0		0	0	0	0	0	0	
CO₂Emissions from Biomass	0								

SUSTAINABLE DEVELOPMENT FOR THE FUTURE - LOW CARBON APPROACH

The definition for “Low Carbon” is still actively being debated. Just like the term “sustainable development” this had different meanings to different persons. To many vested interests this means a change in way they do business. In the petroleum industry low carbon is not a word that is welcomed with open arms. Within the Climate Change convention this term raises significant problems with certain countries and is hotly debated. In Antigua and Barbuda this term is still yet to be defined at the national level and the relevant actions to get there are still being contemplated. This section therefore only provides a theoretical view on what is low carbon in terms of Antigua and Barbuda.

If the term for Low Carbon is that of the AOSIS position, where this drop in the use of Carbon is consistent with the 1.5 degree target, then for Antigua and Barbuda this would mean a correspondent drop in the use of fossil fuels. Since the sources of emissions are mainly from electricity generation and transportation, this could translate in an over 80% drop in the use of fossil fuel. If the country was to achieve this it will have a significant impact on the country’s competitiveness in the market place. More importantly however it would significantly reduce the cost of living and poverty levels of the citizens of the country. The overall economic impact would be

revolutionary. The country would be almost completely immune to the shocks of oil prices. Every country would love to be in this position, but what is making this change difficult?

To get from energy dependence to energy independence, is technically possible for Antigua and Barbuda but will require a significant political effort to accomplish. Even if there is complete and total political will however, this process will require the access to technology and financing. This is the situation that poses the most challenge to SIDS. It is easier to get financing for a diesel power electric generator that it is for wind turbines or solar panels. The reality of a low carbon economy will be almost impossible for a small country like Antigua and Barbuda to reach unless access to financing and priority for financing is changed.

The extent of the political will to date has resulted in the drafting of a new energy policy and the setting a target under the Copenhagen accord to cut its emission by over 25% using 1990 as the base year. This target will be evaluated and actions plan drawn up during 2012. This process will be done as part of the Third national communication for Climate Change.

Until this additional plan is drafted up the concept of the low carbon economy is still very much undefined in Antigua and Barbuda. Until the time that such a policy document is available the NEMS and NLUP and the NEP policies will continue to be the guides to a more “green economy” and these

approved documents will be Antigua and Barbuda's submission to the Rio + 20 process.

CONCLUSION

Antigua and Barbuda is in a situation where it is in the top twenty in terms of global electricity prices. This is coupled with high fuel prices for transportation places this tiny economy in an unsustainable position. The country has made great strides in policy and institutional arrangements for the protection of its natural resources and in its social programs. These however have come at a significant price and the country has had to enter into an IMF program to restructure its finances.

During the consultations for this report many of the participants saw the way forward for the country is via a low carbon approach. This was a very popular view in the country. It is well known however that the necessary finances and political will to get there will require tremendous effort. The country is looking to the international community to come up with the necessary financing mechanisms to make this transformation happen.

At the national level the Government is satisfied that the institutional support required is in place to facilitate the necessary legislative and policy initiatives and does not have plans to make any further changes.

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ANNEX 1. TERMS OF REFERENCE

Terms of Reference
United Nations Conference on Sustainable Development
(Rio+20)
National Preparatory Process

Preparation of Background Paper and Final CSD report in Antigua and Barbuda

Background

Antigua and Barbuda has elected to participate in the national preparatory process in advance of the United Nations Conference on Sustainable Development (UNCSD) to take place in Rio de Janeiro in June 2012.

The national preparation process consists of **three consecutive and interlinked phases**. All three phases contribute to the preparation of an output document while building capacity on the issues.

These three phases are:

- **the preparation of a stocktaking report based on interviews, consultations and desk review;**
- **multi-stakeholder meeting to addresses the issues of the UNCSD; and**

- **the outcomes of both the stocktaking report and multi-stakeholder meeting captured in a national report.**

Consultant(s) Activities:

Under the overall direction of **UNDESA**, the contracted Consultant will undertake the following activities:

A) Prepare the stocktaking report

For the preparation of the stocktaking report the national consultant will conduct interviews and consultations with national stakeholders starting and ending with the national CSD focal point. Through this consultative process, the consultant obtains relevant contextual information from a number of stakeholders in government and national Major Groups and donor organizations. Furthermore, relevant documentation of national strategies, plans, policies, capacity needs assessments, and practical experiences will be reviewed and synthesized by the consultant. A set of guiding questions is in Annex 1.

From this process the consultant will prepare a **20-30 page stocktaking report** that will feed into the discussions to take place during the multi-stakeholder meeting.

B) THE CSD focal Point shall Conduct Multi-stakeholder consultative meeting facilitated by the Consultant;

Based on the stocktaking report, a multi-stakeholder meeting will be organized by the office of the CSD focal Point to discuss and move towards consensus on a national assessment of progress, remaining gaps, experiences and opportunities pertaining to the themes of the UNCSD. In addition, this key phase in the national preparation process has the intent to build the capacity of relevant national institutions to engage in the regional and global preparation processes and implement outcomes of the UNCSD.

Success of the consultative meeting will highly depend on active participation of the attendees. Therefore, it is imperative to invite knowledgeable and senior representatives of the following stakeholder groups to the meeting:

Ministries of Planning (urban and national), Economy, Finance, Environment, Transport, Energy and as appropriate representatives from other ministries and commissions;

International and national financial institutions (e.g. national development banks, commercial banks); and

organizations representing Major Groups such as women, farmers, youth, trade unions and others.

The Office of the CSD focal point will facilitate a two-day workshop in **Antigua and Barbuda**. The date and confirmation of venue have yet to be determined. The proceedings of the meeting will be prepared and circulated possibly as a revised stocktaking report or draft national report.

C) Prepare a Draft National Report

A synthesis report capturing the outcomes of both the stocktaking exercise and the multi-stakeholder meeting will be completed following the workshop. The questions that have been answered during these first two phases will now be presented in a succinct and focused manner. The synthesis report should address the UNCSD objective and the two new themes in the context of the traditional themes of sustainable development, the present situation, experiences gained and aspirations of the country. The synthesis report should aim at providing a number of recommendations for the UNCSD. A set of guiding questions is in Annex 2. In addition, the Questionnaire for Member States on Experiences, Success Factors, Risks and Challenges with regard to Objective and Themes of the UNCSD will guide the reporting.

The Consultant will prepare a workshop report. To facilitate preparation of this report, the contactor shall ensure the appointment of rapporteurs to cover workshop proceedings as noted above. The appropriate government agencies and the principal United Nations partners shall review the National

Report. The consultant will incorporate suggested changes in the report. The report may be modified and adopted by the national government focal point prior to submission to the UNCSD before **28th February, 2012** and modified for UNCSD May 2012.

A Regional Consultant will be engaged to work with the OECS on a synthesis of common issues for the region and any additional institutional frameworks for sustainable development that may be appropriate at the regional level. The regional consultant may be working until end of December on outputs as they are received and a regional meeting may take place in December.

The national synthesis report should:

- be a minimum of 20 pages, and be written in a clear, concise and readable manner;
- include a brief summary of the workshop;
- identify the key issues and barriers to addressing sustainable development including options for green economy, from the perspective of government, major groups and donors;
- propose institutional arrangements for sustainable development;
- focus on the proposed solutions to removing the identified barriers; and

- make recommendations to strengthen the national sustainable development agenda based on the multi-stakeholder dialogue and the outcomes of the workshop.
- The consultant(s) will submit the reports to UNDESA and the National CSD Focal Point for review and incorporate comments provided.
- The synthesis report will be delivered as a contribution to the national delegation in their preparations to attend the Rio+20 Conference and may be adopted with modifications as an official communication.

Time Frame & Deliverables¹⁴

The consultant(s) will deliver to UNDESA and the National CSD Focal Point the following:

- Preliminary Synthesis report to be provided to the National CSD Focal Point by 1 November

¹⁴ These timelines depends on the feedback and responses from agencies. The workshop will depend on the availability of the CSD focal point to complete this exercise.

- a background paper as described above to be used for the Workshop. The paper should be completed at least one week before the workshop date;
- Final National report completed by 28th February, 2012

Qualifications

The consultant(s) should be nationally renowned and internationally recognized with 5 to 10 years experience in the fields of sustainable development. The consultant(s) can assemble a team of experts to undertake the tasks provided that team members are experts in at least the field of sustainable development. The experts must have long working experience in the field of sustainable development. Familiarity with the United Nations and its programs in sustainable development is beneficial. All experts must have proven strong written and communications skills.

Implementation and Coordination Arrangements

The consultant will be issued a Contract, managed by UNDESA through UNDP in **Barbados**. The National CSD Focal Point will serve as the national counterpart agency. The consultant will report to :

Annex 1.1

Guiding questions for the Stocktaking Report

- The stocktaking report could describe the context of green economy and national institutional framework for sustainable development based on the following questions:
- Has your country supported any of the Multilateral Environmental Agreements? Please list and provide details on responsible institution/Ministry, effect on policies and planning.
- What actions have been introduced in your country to strengthen political support for sustainable development? E.g. has the support to MEAs lead to sustainable development to be mainstreamed into development policies and planning?
- Has your country introduced or promoted integrated planning and decision making for sustainable development? If so, under what title (NSDS, PRSP, Five Year Plan, NCS or NEAP, other)? What are the lessons from this experience?
- Are there specific industry sectors or resource areas (e.g., water, energy, biodiversity, transport, other) where national political commitment to achieve sustainable development goals has been especially strong? If so, what factors explain that commitment?
- Has your government (national and local) been actively involved in developing and/or implementing local agendas 21? If so, where? What have the achievements been so far?
- What institutions have been developed for sustainable development in your country? Have changes been made to existing institutions in this context?
- Have the Ministry of Finance/Ministry of Planning or important line ministries been engaged in public policy and planning for sustainable development? Is there for instance coordination across Planning, Health, Environment, Transport, Energy agencies on transport and land use?
- What new and emerging challenges are likely to affect the prospects for sustainable development in the coming decade? What mechanisms have been put in place in your country to address these challenges: At the local level? At the national level?
- Is there a consensus among policy makers in your country on the meaning of the term green economy in the context of sustainable development and poverty eradication? If so, how is it defined?
- What would green economy mean in your country? Are there studies for your country that identify success factors, challenges or risks associated with green economy policies identified? Have green economy actions been taken so far in your country?

- These questions as well as any reporting on the CSD themes (**Agriculture, Transport, Energy, Climate Change, Biodiversity, Land degradation, Water**) could be used to draft the stocktaking report.

Annex 1.2

Guiding questions for the Synthesis Report

In addition to responding to the questions that were already addressed in the stocktaking exercise, a set of questions on the institutional framework and on the potential for green economy to enhance sustainable development are suggested here.

Sessions regarding the institutional framework could address the following questions:

- Has your country or parts of your country introduced or promoted integrated planning and decision making for sustainable development? If so, under what title (National Sustainable Development Strategies, PRSP, Five Year Plan, NCS or NEAP, Other)? What are the lessons from this experience?
- What factors explain progress in implementation (economic growth, investment in technical and institutional capacity, other)?
- Is the technical assistance from UN system entities a key factor in explaining success? If so, in what areas or sectors (e.g., MDGs, water, energy, transport, health, agriculture, biodiversity, forests, climate change, jobs, other)?
- How can international cooperation strengthen support for sustainable development? What are your expectations for UNCSD in this regard?
- What are the main difficulties experienced in promoting integrated planning and decision-making?
- Looking forward to ~2030, what are your government's / organization's highest priorities for accelerating progress towards sustainable development?
- What new and emerging challenges are likely to affect the prospects for sustainable development in the coming decade? Do the new and emerging challenges pose a fundamental risk to the prospects of economic growth and development in your country? What new and emerging challenges should the UNCSD enact upon?
- What mechanisms have been put in place in your country to address these challenges: At the local level? At the national level?
- Sessions regarding green economy in the context of sustainable development and poverty eradication could address the following questions:

- Are the Millennium Development Goals established in Johannesburg and sustainable development themes going back to Rio in 1992 adequately addressing national needs
- Is there a consensus among policy makers in your country on the meaning of the term green economy in the context of sustainable development and poverty eradication? If so, how is it defined?
- What are the main perceived benefits of implementing a national/regional green economy strategy? Are these benefits being tracked, measured and reported?
- Based on all of the above, what is (are) the key outcome(s) you think could emerge from the UN Conference on Sustainable Development in 2012 with respect to a 'green economy in the context of sustainable development and poverty eradication'?

