

ANNEX

Matrix for the review of implementation of the programme of work on island biodiversity

This table can also be completed on-line at: <http://www.cbd.int/island/reports.shtml>

Party: Saint Lucia

2020 Biodiversity Targets (“Aichi Biodiversity Targets”) <i>(Text in bold above target is a synopsis of the target, for easy reference)</i>	Progress/Obstacles
<p align="center">Strategic goal A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society</p>	
<p>General awareness of biodiversity is achieved</p> <p>Target 1: By 2020, at the latest, all people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.</p>	<p><i>A national environmental education policy and strategy that includes biodiversity has been drafted. There are plans to produce an environmental education manual to train relevant persons, especially key public officers, in the integration of presentations on environment matters including biodiversity. A Draft Biodiversity Education and Awareness Strategy and Action Plan has been produced. A national My island/My Community Coalition comprising various stakeholders has been formed and is focusing on biodiversity and Climate Change. This coalition will produce educational activities on the theme “Biodiversity and Climate Change” revolving around a radio serial drama that was recently launched called “Callaloo” carrying the message of ‘biodiversity and climate change’ in an entertainment education modality. Stakeholders from the region were trained in entertainment education at a workshop in Saint Lucia in May 2010. GEF Small Grants Program funds helped finance this activity which was done in conjunction with an NGO called Media Impact International.</i></p> <p><i>The CBD hosted a regional training workshop on biodiversity education, communication and public awareness in 2008 that was attended by media personnel and Clearing House mechanism representatives from Saint Lucia and the rest of the region. Various public awareness campaigns including a major television quiz program, an award ceremony, exhibitions have been undertaken under various biodiversity projects.</i></p> <p><i>A children’s storybook called “Tim Tim the River Crayfish” was launched in Saint Lucia in June 2011. It was written by a former educator and consultant, Mrs. Fortuna Anthony, in an effort to educate children about the importance of one river in the rural areas, the Riviere Doree River, which played a significant role to many families of the community many years ago.</i></p> <p><i>The Saint Lucia National Trust and the Forestry Department teamed up to take interested persons birdwatching to various areas where endemic, resident and migrant birds could be seen, in honor of World Environment Day 2011, that focused on the Forest.</i></p> <p><i>Public awareness is ongoing by agencies of the ministry in work programmes that</i></p>

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	<p><i>routinely highlight the importance of biodiversity via the electronic and print media. The National Television Network and the National Radio Station frequently carry panel discussions highlighting biodiversity. School presentations are made to schools on demand and on occasion of special days like World Biodiversity Day by various agencies including those of the Ministry of Agriculture.</i></p> <p><i>Film productions on various aspects of Saint Lucia’s biodiversity are also done and one such was released in honor of Earth Day 2011, by the Saint Lucia National Trust, called “Saint Lucia: An island nation under pressure” highlighting the development pressures affecting the North Eastern corridor of the island, which is rich in biodiversity and the need for there to be balance between development and conservation. This film release was followed by a hike to these areas of outstanding biodiversity led by the Saint Lucia National Trust.</i></p> <p><i>Beach clean up activities also occur. A private sector concern, the East Caribbean Financial Holding (ECFH) sponsors “Greedy for green” initiatives in the country.</i></p> <p><i>A state -of –the- art, unique, very first of its kind in the entire world, animation centre was opened to the general public in May 2011 in a down town location in the city centre. The highly interactive centre, based on cutting edge technology seeks to promote awareness of conserving biodiversity in Saint Lucia as a movement to save the earth. It is private sector owned and is called “Our Planet Centre”. It also shows the impact of climate change on our planet. It also teaches about the endangered species of Saint Lucia.</i></p> <p><i>A Youth Environment Forum focusing on Biodiversity was held by the Saint Lucia National Trust for students ranging in age from 7 to 17 in July 2010. The newsletter of that entity highlights biodiversity from time to time.</i></p> <p><i>Material on Caribbean Biodiversity was handed to the Saint Lucia Library Services by representatives from the US Embassy in Trinidad on Earth Day 2010.</i></p> <p><i>Stamps depicting four endemic species were launched by the General Post Office in honor of the International Year of Biodiversity on 11th June 2010.</i></p> <p><i>A Biodiversity Symposium was held in June 2010 to an audience of about sixty persons from every sector and walk of life, presented with different aspects of biodiversity by local experts. A biodiversity exposition was held at a public venue, displaying products made from biological resources by various resource users who were able to make money selling their wares that day. The display was similar to a street party and was held on a Boulevard Avenue, down town the city centre, for the general public, in October 2010, focusing on the theme “Biodiversity for poverty alleviation and development”. Financing</i></p>

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	<p><i>needs to be provided for more such opportunities. Performing artistes focused on biodiversity when presenting songs, jingles, drama, choral speaking, popular theatre pieces over the course of the day at that activity. Financing needs to be provided so that more artistes can use their talents in this manner.</i></p> <p><i>A photographic and video graphic database on Saint Lucian biodiversity has been created and is widely used by the public and members of staff of the ministry.</i></p> <p><i>More work needs to be done to help more people understand the meaning of the term biodiversity and its significance to their lives. With the ongoing IAS project, further work in this direction will be undertaken .A Carnival Band led by some of the foremost artists in the country will be featuring biodiversity conservation during the July 2011 festivities, partly funded by the IAS Project. Huge costumes depicting the Saint Lucian Parrot, the Saint Lucia Iguana and the alien invasive Lion Fish will be highlighted at the jump-up and then displayed in prominent public places and used to educate students about invasive species.</i></p> <p><i>The Saint Lucia Forestry Department undertook a successful Pride Campaign, on the Saint Lucia Iguana, with help from the RARE Centre for Tropical Conservation, to sensitise the public about the iguana’s plight and the assistance that they could provide. Brochures funded by the EU have been produced for conservation of mangroves and the Saint Lucia iguana. The OECS has produced videos, posters, booklets and Public Service Announcements on biodiversity which have been widely distributed to its island member states. Funding for these productions came from USAID. The WIDECASST Turtle Network has produced and distributed educational materials on turtles to schools. A book for schools called Environment Nature Watch, funded by the British High Commission was produced about four years ago and distributed. A book on birds of Saint Lucia produced by the Forestry Department in collaboration with the Taiwanese government has been produced and distributed.</i></p> <p><i>The Fisheries Department has produced books on Fisheries resources and their conservation and a booklet on folklore of sea turtles in Saint Lucia.</i></p> <p><i>Annual summer workshops have been held for teachers on various biodiversity issues like forests, rivers, mangroves, seaturtles funded by the OECS and UNESCO. More financing is needed to continue such teacher training workshops, where the teachers are usually very energised and stimulated and form groups that wither when school is open due to the pressures of teaching. Assistance is needed in making these groups more sustainable.</i></p> <p><i>Summer camps are held every year to teach students the importance of forests and</i></p>

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	<p><i>biodiversity by the Forestry Department, usually in an eco-lodge in the forest. More human and financial resources are needed in the area.</i></p> <p><i>An agro-biodiversity education production of materials project is underway for the country. There are at least two regular public service announcements on the national television network on biodiversity and its meaning. Biodiversity website functioning is to be updated.</i></p> <p><i>A Sustainable Seafood festival will be held in August 2011 in the Fisheries Headquarters in the city. A Root crop festival highlighting the importance of root crops was held in May 2011. Financial resources need to be increased in this area especially from government funds.</i></p> <p><i>Biodiversity is slowly becoming accepted as a household word. Several Surveys (2003, 2008, 2010), have indicated that Saint Lucians have some understanding of biodiversity and its importance.</i></p>
<p>Biodiversity is mainstreamed into development strategies and plans</p> <p>Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.</p>	<p><i>The vision plan of the country takes into consideration areas of important biological resources to be considered, when development plans are being pursued. However assistance is needed to help developers conserve the habitats of endangered species.</i></p> <p><i>The National Environmental Commission (NEC) launched officially in 2008 is to perform an integral role in facilitating inter-agency collaboration and coordination.</i></p> <p><i>The Second National Environment and Development Forum was held, courtesy of the NEC where the green economy was the main focus of discussion. This activity was done in honor of World Environment Day 2011. It sought to provide a forum for public and private sector agencies as well as civil society groups to examine the term “The Green Economy” (GE) within the national economy, sensitise the sectors on the GE, determine how the GE can be used to promote green jobs and improve the overall output of businesses, begin to develop a national position on GE and to commence the national process for preparing the Rio +20 UNCSD where nations will discuss the GE. Plans are afoot for a follow up to this activity.</i></p> <p><i>Similarity in agendas of government departments has fuelled the need to seek integration of biodiversity issues into many strategies and plans. Examples are the Millennium Development Goals for the country, the Systems Plan of Protected Areas by the OPAAL Project, the Coastal Zone Management Strategy and Action Plan, the National Environmental Management Strategy, the UNCCD National Action Plan, the Integrated Watershed and Coastal Zone Management Plan, the Sustainable Energy Plan, Disaster Management Plan including the Fire Management Plan and Biosafety, the Renewable Energy Plan of the Ministry of Agriculture, the Saint Lucia Nature Tourism Plan (Heritage Tourism Charter), the Medium Term Development Strategy, the United Nations</i></p>

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	<p><i>Development Assistance Framework (UNDAF).</i></p> <p><i>The Ministry of Finance will have to consider taking a new approach to undertaking national accounting. It is hoped that with the new GEF project on sustainable financing for protected areas in which that ministry will be playing a key role, that it will begin to think out of its traditional modalities, as it has officers trained in green national accounting. Much more work is needed with the Finance Ministry in this area if national accounting will take biodiversity into account.</i></p> <p><i>The Economics of Ecosystem services and Biodiversity (TEEB) methodology is currently being applied to the country where a critical ecosystem is being studied by local experts as to how much value it offers financially to the country. Two local experts were trained in this regard.</i></p> <p><i>Biodiversity has been included In poverty reduction strategies, tourism and physical planning processes especially with regard to legislation concerning EIAs. Environmental management Systems are practiced by the private sector and some entities in the agricultural sector and include Green Globe Certification, Fair Trade, GAP and LEAF and ISO 14000. Saint Lucia is also party to the Sustainable Tourism Protocol under the Association of Caribbean States (ACS). The issue of coordination among agencies needs further work which it is hoped that the NEC will continue to provide. The process for the NEC needs to be strengthened.</i></p>
<p>Biodiversity incentives are used in policy (negative avoided, positive applied)</p> <p>Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.</p>	<p>Work still has to be undertaken with developers who are given incentives to build hotels, to do so in an environmentally sound manner, such that they protect the habitat of critically endangered species including coral reefs and that they also protect the Queen’s Chain. Assistance in that regarded is very much needed. Also farmers are being encouraged to develop good agricultural practices and banana producers under the Fair Trade banner are encouraged to be more biodiversity conservation minded as they cultivate their crop.</p> <p>There is still work to be done in helping pig farmers to be more conservation minded as to where and how they build their pig pens and in ensuring that the production focus of the ministry is more in tandem with its conservation focus.</p> <p>Under the Invasives Alien Species (IAS) project, monetary incentives have been given, so that sightings of the alien iguana, which is a threat to the native iguana, can be reported to the department of Forestry.</p> <p>The Agricultural Incentives Regime developed by the Ministry of Agriculture promotes mainstreaming at all levels (national, sectoral and community) through the provision of concessions to farmers and famers’ groups for the adoption of environmental management measures. Mainstreaming at the community level is also promoted through other agricultural related incentive programmes such as Global GAP and LEAF.</p>

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	<p>Incentives to promote mainstreaming of biodiversity issues in the tourism sector and industry include the use of global environmental awards such as Green Globe and ISO 14001-Environmental Management Systems.</p> <p>A national biodiversity awards ceremony in 2005, sponsored by the private sector (the Bank of Saint Lucia), developed by the Ministry of Agriculture, Lands, Fisheries and Forestry targeted schools, communities, individuals, private sector and the media promoting biodiversity integration at all levels. The awards were very much appreciated by all winners especially the private sector. Further funding by the private sector is needed for such meaningful exercises to continue.</p>
<p>Sustainable (biodiversity-friendly) production and consumption are in place</p> <p>Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits</p>	<p>Under the WINFRESH National Fair Trade program, farmers were encouraged to cultivate bananas in a biodiversity conservation manner where they were required to follow standards such as LEAF for their suppliers. With the disaster caused by Hurricane Tomas, this is currently at a standstill. Assistance is needed to help farmers recover from the impact of the hurricane and to return to their former conservation cultivation mode.</p> <p>Farmers were also encouraged to reap benefits for their communities in obtaining revenue from the sustainable management of their holdings including following EUREP GAP under the national Fair Trade System.</p> <p>Hoteliers are working on improving the environmental management of their hotels and most hotels have an environmental management officer and seek to earn the Green Globe Award. A Clay product Industry producing used oil, recycles the oil for heat generation activities.</p> <p>Some biological resource users have begun to be trained in the monitoring of use of biological resources for their livelihoods.</p> <p>A local producer of fast foods, Burger Plus, promotes good solid waste management on all his disposables and has been doing that from the inception of his business, for over twenty years.</p> <p>The Soufriere Marine Management Area encourages conservation of fish stocks. Pilot whaling is done on a sustainable basis in the country where no more than four whales are harvested in any one year. There are closed seasons for the lobster and seaegg harvesters during the breeding season of these species. A Sustainable Seafood Festival hosted by the Fisheries Department of the Ministry of Agriculture will take place in August 2011 highlighting sustainable use of the fisheries resource.</p> <p>A private sector firm, Consolidated Foods Limited, sells green shopping bags at its supermarket outlets to reduce on the use of plastic bags when buying groceries.</p> <p>More work needs to be done in that area as there are limited human resources to work in that field.</p>
<p align="center">Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use</p>	

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<p>Rate of loss of all habitats are at least halved, fragmentation and degradation reduced</p> <p>Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced</p>	<p>A biophysical resource inventory study carried out in 2009 and financed by the EU, indicated that the mesic forest outside the government forest reserve was under threat of rapid loss because of development pressures and that is where most of the critically endangered wildlife exist. A national Land Use Zoning plan is currently being developed under an ongoing Sustainable Land Management Project and that should help make this goal a reality. Three hundred acres of forest was recently added to the Government Forest Reserve. Another forty hectares of forest bordering the Castries Forest Reserve is being acquired by the government of Saint Lucia, from a local farmer, for watershed purposes. Funding is needed by the government to continue to acquire such important private lands. A habitat critical for many marine species, the Pointe Sables Area in the south, was recently designated an environmental protection area with management plan by the Cabinet of Ministers. Human and financial resources are again limited.</p> <p>Saint Lucia has recorded the down listing of its endemic parrot from critically endangered to vulnerable species. The mauby and latanye palm species are now cultivated. Forests conserved on private lands are used for ecotourism and production of flowers for local use and export. More traditional crops are being planted by farmers and householders. Coral reefs and wetlands under threat from developmental pressures. Coastal habitat mapping of the south west coast of the island was recently undertaken. Two RAMSAR sites have been declared on the island, Mankote and Savannes Bay. Ship generated solid waste management legislation in place. The Land conservation Act for better management of private lands to be studied for possible reactivation under the Sustainable Land Management Project. Agro-ecosystems under threat from land –use changes.</p> <p>Hurricane Tomas occurring in October 2010 caused severe damage to the forest of the country. Work is in progress to reforest damaged areas. Financial assistance is needed further in this regard.</p>
<p>Fish, invertebrates and aquatic plants are sustainable harvested</p> <p>Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.</p>	<p>With the establishment of the Soufriere Marine Management Area, there has been seen a dramatic increase in fish stocks. This reserve modality is expected to be replicated around the island especially with the review of the System Plan of Protected Areas that now takes in seven areas to the original twenty seven. Open and closed seasons are in place for the sea turtles, sea eggs, lobsters to conserve the species and also the Queen Conch. Human and financial resources are limited. Legislation is in place to manage marine and aquatic species. The Fisheries Department keep stock of their data records. A Sustainable Sea Food festival will be held by the Fisheries Department to highlight sustainable harvesting and use of the fisheries of the island.</p> <p>The Diamond back Squid is currently being promoted as a source of protein. It is local and plentiful and being pushed since it lives for one year. There is a ban on the harvesting of the local crayfish species.</p>
<p>Areas under agriculture, aquaculture and forestry are managed sustainably</p>	<p>With the institution of good agricultural practices such as EUREP-GAP, attempts are being made to manage agriculture sustainably.</p>

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<p>Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity</p>	<p>Forestry has always been approached from a conservation standpoint where selective clear felling of timber is the practice on the island, instead of clear felling and the forest is used more for protection than production. Forest trail visitation is used as a good system for obtaining revenue from forests. There has been a drastic reduction in revenue obtained from this activity in recent years and this has been further reduced with the passage of Hurricane Tomas.</p> <p>Aquaculture is practiced as a farming method for imported tilapia and shrimp.</p> <p>Non timber forest products are all encouraged to be harvested sustainably and the Forestry department is currently engaged in researching the extraction of incense from the bark of the incense tree without killing the tree. The latanye palm tree which was once overharvested to make the latanye brooms is now cultivated and outplanted by farmers. Mangrove trees used for charcoal are sustainably harvested. The Agriculture Sector policy 2009-2015 stresses conservation of the natural resource base and the various departments of the ministry is working in that regard to achieve that goal. Further technical and financial assistance in this regard will be welcomed.</p>
<p>Pollution and eutrophication are contained and controlled</p> <p>Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.</p>	<p>Recreation Quality Standards have been developed, approved by the Cabinet of Ministers and are being implemented in the country on a voluntary basis. The NorthWest Coastal Quality Project discussed further below is testing the implementability of the standards.</p> <p>Saint Lucia is now a party to the Land Based Sources of Marine Pollution (LBS) Protocol. The Integrated Watershed and Coastal Areas Management Project produced policies on how work done on land can affect the marine environment. EIAs are undertaken in conjunction with referral agencies. However there is a limitation with regard to the enforcement and ongoing monitoring for compliance due to constraints in the human resource.</p> <p>The IWCAM Project demonstrated constructed wetlands for sewage management that will hopefully be replicated in the country, pending funding availability.</p> <p>There is an integrated water resources management (IWRM) plan for the Fond D’Or Watershed which needs financing to be fully implemented.</p> <p>The Department of Forestry undertakes regular riverbank stabilisation programs with communities.</p> <p>Good agricultural practice by farmers and Fair Trade Standards demand reduction in soil loss and the minimisation of the effects of agro-chemical use.</p> <p>Solid Waste management legislation in place implemented through waste collection services, beverage container legislation drafted to address indiscriminate littering of plastic bottles, ship generated waste legislation in place.</p>

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	<p>Coastal zone management section in the environment section is in place and needs to be strengthened. There is an active coastal zone management advisory council (CZMAC) in place to monitor the impacts on the coasts of the island</p> <p>A north west coast recreational water quality project, “Mainstreaming Saint Lucia’s National Plan of Action through a North west Coast Water Quality Demonstration Project”. The main objective is to improve recreational water quality in that area of the coast and to seek best practices for pollution discharge reduction. Funding has been provided to do a characterisation of hot spots, pollution and environmental degradation. Financial resources are needed to establish pollution control strategies for mediation, cost the solutions and devise priority solutions. The current funding is investigating one watershed and further funding is needed to do work on the three other watersheds targeted. This mainstreaming project found high levels of nitrates and phosphates, in both the riverine and coastal areas. The levels were way above the World Health Organisation (WHO) and the recreational water quality standards of the country. These levels can lead to eutrophication. The next step is to try and focus on dealing with nutrients such as detergent effluents responsible for algal bloom. This may necessitate promoting nitrate free detergents to consumers and suppliers. Technical assistance is needed in this regard. Funding is also needed to continue promoting education and public awareness.</p> <p>The Ministry of Finance is currently looking at sewerage management in the city basin of Castries. This is an undertaking which originated from efforts of the Coastal Zone Management Advisory Council (CZMAC). The Prime Minister directed that a Cabinet Appointed Committee be established to deal with the problem and consultants have been hired using local funds to determine the best type of sewerage treatment that is required for the raw sewage that has been entering the harbour for at least the last thirty years.</p> <p>Financial resources will be needed to fund the design and building of the treatment facility that will be recommended from the study. The Coastal Zone Management individual is the current chair of that Committee. It is composed of the Chief Engineer of the Ministry of Communications and Works, the Saint Lucia Air and Sea Ports Authority, the Chief Environmental Health Officer, a representative from the Castries City Council, the Water Sector Reform Project and the National Reconstruction Plan Unit and a senior engineer at the Water and Sewerage Company. This committee will also look into grey water and black water entering the Castries harbour.</p> <p>The Special Planning for Adaptation to Climate Change (SPACC) Project funded by GEF, is assisting with sewage treatment at a hotel in the south of the island to reduce the impact of the effluent from the hotel on the biodiversity in the marine environment.</p>

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<p>Invasive alien species identified, priority species controlled/eradicated, pathways contained</p> <p>Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment</p>	<p>Prevention is the most cost-effective management approach to invasive alien species (IAS). Thus, Saint Lucia’s priority is to intercept pathways of IAS introduction. Saint Lucia’s IAS pathways have been analyzed by Mathurin, G. (2010): <i>Invasive Alien Species (IAS) Pathways: Saint Lucia</i>. Consultancy reports under the project “<i>Mitigating the Threats of Invasive Alien Species in the Insular Caribbean</i>”, Project No. GFL / 2328 – 2713-4A86, GF-1030-09-03, pp. 40. This report will soon be up-loaded on www.ciasnet.org</p> <p>A critical analysis of the current status quo of IAS and their management in Saint Lucia was also prepared and up-loaded on the above-mentioned website: Krauss, U. (2010) <i>Critical Situation Analysis (CSA) of Invasive Alien Species (IAS) Status and Management, Saint Lucia</i>. Consultancy reports under the project “<i>Mitigating the Threats of Invasive Alien Species in the Insular Caribbean</i>”, Project No. GFL / 2328 – 2713-4A86, GF-1030-09-03, pp. 103. This report also includes a priority list of species for prevention/preparedness.</p> <p>Two IAS species originating from the pet trade were prioritized for GEF-funded pilot projects: The Indo-Pacific lionfish for capacity building on prevention and preparedness, and the alien invasive iguana for early detection and rapid response in an attempt to eradicate it.</p> <p>In parallel, Saint Lucia is in the process of creating a conducive framework for IAS management: the draft National IAS Strategy (2012-2021) is currently under review by the IAS Working Group for finalization and endorsement. Subsequently, it is expected to inform legislation, optimization of institutional arrangements as well as public education.</p> <p>Despite GEF funding, the continuous availability of trained staff, who tend to be oversubscribed on several roles, is not always present, This constitutes a major obstacle to effective IAS management.</p> <p>Durrell Wildlife Conservation Trust is working with the Department of Forestry to reduce the impact of feral pigs in the forest.</p>

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	<p>Ballast waters are being considered to be monitored as a possible pathway for IAS with the assistance of the International Maritime Organisation (IMO).</p> <p>Agricultural invasives have always been controlled and regulated by the quarantine department of the Ministry of Agriculture, Lands, Forestry and Fisheries working in close collaboration with the Customs and Excise Department. Saint Lucia is part of the CARICOM Working Group, CISWIG in that regard. The Amblyomma Tick, a pest of cattle, spread by the cattle egret has been brought under control. Currently, the Black sigatoga pest is seriously affecting banana plants in Saint Lucia.</p>
<p>Pressure from ocean acidification and climate change on coral reefs and other vulnerable ecosystems minimized</p> <p>Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning</p>	<p>Coastal Zone Management Section in place in Sustainable Development and Environment Section of the Ministry of Planning. Section needs strengthening with more human power and resources. Coastal Zone Management Strategy and Action in place. Climate Change Adaptation Policy in place for country from 2003. Effective and active Coastal Zone Management Advisory Committee (CZMAC) existing, appointed by Cabinet. Many agencies represented in CZMAC are part of the National Climate Change Committee. Impacts of Climate Change on Coral reefs monitored by Fisheries Department and the Soufriere Marine Management Authority (SMMA). More financing and training needed in this area. Technical and financial assistance is needed for monitoring ocean acidification by regular measurements of the pH of the sea water.</p> <p>OECS in July launched a project for its member states on climate risk reduction, funded by USAID.</p> <p>Saint Lucia is also engaged in a pilot program for Climate Resilience (PPCR) sponsored by various aid agencies. Through this process, the government seeks to ensure that responses to climate change are properly coordinated and integrated with socio-economic development policies and environmental conservation. The key elements of the Saint Lucia adaptation framework comprise the enhancement of resilience at various levels of society through tangible interventions, capacity building, education and awareness, research and knowledge management, efficient resource allocation and the mainstreaming of climate risk management into development policies at the national and local scale. \$5-7US in grant funding and USD 10 million in concessional funding with USD 375,760 in funding for project preparation constitute the required funding for this activity. This will also be coupled with a Disaster Vulnerability Reduction Project (DVRP) currently in the design phase with potential for accessing up to USD 10-15M from the International Development Association (IDA).</p>
<p align="center">Strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity</p>	

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<p>17% terrestrial and 10% of coastal and marine areas are conserved in networks of protected areas</p> <p>Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes.</p>	<p>OPAAL Project produced review of System of Protected Areas, with representative ecosystems of the country produced by ecological gap analysis, with seven areas identified to be protected. Management plans of these areas have to be presented to the Cabinet of Ministers for their endorsement. Protected areas was 14.7% of total land area in 2003 (IUCN). Protected Areas expanded, about 300 additional acres in the government forest reserve. Piton Management Area, World Heritage Site of outstanding natural beauty. Status obtained in 30th June 2004, inscribed in 14th February 2005 for terrestrial and coastal area. Pointe Sable area in the south designated an environmental protected area by the Cabinet of Ministers. There are seven types of protected areas in Saint Lucia namely marine reserves, fisheries management areas, forest reserves, wildlife reserves, environmental protection areas and other areas including fishing priority areas.</p>
<p>Extinction of all threatened species is prevented, conservation status is improved</p> <p>Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.</p>	<p>Management Plans are in place and being implemented for the Saint Lucia Parrot, the Saint Lucia Iguana, the Saint Lucia Whiptail and the White Breasted Thrasher is monitored. Migrant species are monitored. Limited human and financial resources.</p> <p>Restoration of mauby, latanye and fat poke plant species, traditional crops. Moratorium on hunting of wildlife. More research to be carried out on non timber forest products such as lianas-awali (<i>Clusia</i> spp.), Pomdelien (<i>Passiflora laurifolia</i>) used for the craft industry. Latanye and mauby species used in livelihoods brought back from brink of extinction.</p> <p>Two of Saint Lucia’s most threatened animal species are endemic reptiles: the Saint Lucia racer snake (<i>Liophis ornatus</i>) and the Saint Lucia whiptail lizard (<i>Cnemidophorus vanzoi</i>). Both reptiles have been extirpated from the mainland by IAS and, in the 1960s, their global range was restricted to the two Maria Islands, which cover just 12 ha and are extremely vulnerable to stochastic events. A combination of concerted actions has helped to recover populations of the whiptail and to reduce risk to this species:</p> <ul style="list-style-type: none"> ➤ Maintaining the Maria Islands IAS free ➤ Eradication of predatory IAS on Praslin and Rat Islands, subsequent monitoring and keeping them IAS free ➤ Relocation of whiptail to Praslin and Rat Islands; management of metapopulations to maintain genetic integrity and avoid inbreeding depression <p>Endemic and threatened plants, as well as their alien invasive competitors, are constantly being surveyed and monitored (www.saintlucianplants.com). Early detection and rapid response has aided the elimination of some prioritised invasive plants from prioritized sites that are either particularly vulnerable and/or of high conservation value, in an attempt to protect Saint Lucia’s threatened endemic flora.</p> <p>Again, the continuous availability of trained staff is a bottleneck in effective management of threatened species. Limited human and financial resources.</p>

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<p>Breeds/varieties of cultivated animals and plants and their wild relatives are maintained, strategies for genetic erosion are in place</p> <p>Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.</p>	<p>. A study has been carried out for crops and livestock on genetic diversity. The germ plasm of some species are maintained for crops of socio-economic importance including traditional crops e.g. bananas, latanye, mauby, root crops, yams, medicinal plants at the national herbarium and on some farmers’ holdings. Five traditional crops that are threatened are currently being surveyed by the Research Division of the Ministry of Agriculture including eddoes, topi-tambu, small ginger. Folk lore of sea turtles surveyed and documented. Biosafety implementation project to come on stream soon. Draft biosafety framework developed. Biosafety very low on country’s agenda. Limited human and financial resources.</p>
<p align="center">Strategic goal D: Enhance the benefits to all from biodiversity and ecosystem services</p>	
<p>Ecosystems that provide water, health, livelihoods and well-being are restored and safeguarded</p> <p>Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.</p>	<p>A Water Sector Policy was adopted by the government in 2004. Legislation has also been passed for water resources management. A water resources management agency has been recently established. It needs to be strengthened with technical and financial resources.</p> <p>The forest policy has been drafted and forest legislation amended. New forest legislation to be passed. Help needed in this regard. Increase in forest reserves to improve ecosystem services of forests. The capacity of wetlands and the dry forests ecosystem to deliver goods and services is under threat. There is increasing incidence of human induced ecosystem failure as land use changes due to development pressures negatively impact ecological function. National Biodiversity Information Network and data base designed and tested. Technical and financial assistance needed in completing national database. USAID PERB Project designed database for protected areas of islands. Saint Lucia used as a pilot. Technical and financial assistance needed in filling out database.</p> <p>Resource users commenced training in inputting data on use of biological resources for their livelihoods. That development to be strengthened with further training in data management.</p> <p>The OECS Protected Areas and Associated Livelihoods project (OPAAL) which is in its final stages of completion has been focusing on the completion of the sustainable livelihoods subproject and the renovation of the Maria Islands Interpretation Centre, so that it can serve the entire PSEPA.. The project was geared towards providing operators within the Pointe Sable Environmental Protection Area (PSEPA), with the capacity, skills and resources necessary to enhance their livelihood operations. These operators included charcoal producers, seamoss farmers, fishers, horse-back riders, crafts producers and boat operators. The project provided tools, materials and equipment for these operators. A comprehensive business plan for the operators was prepared by a consultant to develop and promote the various products within the area.</p> <p>Cultivation and sale of traditional food crops increasing. Back yard gardening activity aggressively promoted by ministry and through competitions. Jardin Keywol promoted by</p>

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	<p>Folk Research Centre. Herb farmers associations formed and Organic farmers Association to be resuscitated. Commercial natural herbal remedies businesses operating. Fisher folk cooperatives established and functioning in collaboration with extension services of the Fisheries Department. HERITAS program supporting community development through use of biological resources for touristic purposes.</p> <p>Sea urchin fishery monitored and strengthened through assistance of Fisheries Department. Sea Turtle monitoring in place assisted by Fisheries Department. Seamoss farmers helped by Fisheries Department.</p> <p>Latanye broom producers developed into a commercial enterprise.</p> <p>SMMA established and functioning financed by a trust fund as part of national accounting, monitoring impacts on the coral reefs. Sedimentation is one of greatest threats impacting coral reefs of the SMMA. Further assistance in that regard will be appreciated.</p> <p>Study done on charcoal use and production in the country.</p> <p>Study done on extraction of incense from Protium attenuatum (l'encens) trees in the country. Research currently in progress on extraction of incense without killing the tree.</p> <p>Study done on non-timber forest resources of the country. Recommendations of study needs financing to be rolled out.</p> <p>Study done on managing forest trails in collaboration with the private sector. Recommendations to be implemented. Financing needed.</p> <p>Forest trails developed as commercial enterprises. Road to some trails have deteriorated, so have prevented access to trails, especially after Hurricane Tomas. Traffic In visitation to some trails have been drastically reduced. Some trail tour guides have had to be redeployed as a result. Financing is needed in rehabilitating roads to trails.</p> <p>Limited human resources and finances to exploit some of the resources.</p> <p>IICA, Ministry of Social Transformation and the Forestry Department has been assisting rural women to take economic advantage of their local biological resources. Herbal association, CAPSICUM in existence.</p> <p>Help needed in exploiting sustainably some of the biological resources of the island.</p>
<p>Ecosystem resilience and carbon stocks from biodiversity are enhanced, at least 15% of degraded ecosystems are restored, promoting joint implementation of Rio Conventions</p> <p>Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.</p>	<p>Saint Lucia has done studies on REDD Plus for its forest sector, under its forest management project funded by the EU. The study has been considered as a model for small island developing states. Technical and financial assistance and training needed for further development in this regard.</p>

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<p>Nagoya protocol on ABS is in force and operational</p> <p>Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.</p>	<p>ABS clauses in place in draft biodiversity conservation and sustainable use bill. To be fine tuned to take into consideration specifics of Nagoya Protocol. Technical and financial assistance required in this regard.</p> <p>Agreements drafted by the departments of forestry and fisheries implemented with researchers to get access to country’s biological resources. For example, breeding loan agreement program with the Jersey Zoo and research into any fishery resource. Draft regulations for biodiversity legislation developed. Saint Lucia represents Caribbean on bureau of Intergovernmental Committee for Nagoya Protocol since June 2011. Country and region to be mobilised to understand significance of ABS for national socio-economic development. Help to be obtained from Japan fund in this regard.</p>
<p align="center"><i>Strategic Goal E: Enhance Implementation through participatory planning, knowledge management and capacity building</i></p>	
<p>All Parties have an effective and updated NBSAP produced in a participatory manner</p> <p>Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.</p>	<p>First NBSAP done through islandwide consultation in 2000, almost completely implemented. Second NBSAP drafted in 2008, after island wide consultations with funding from EU, to be fine tuned to take into consideration AICHI Targets, Nagoya Protocol on Access and Benefit Sharing and Nagoya Liability and Redress protocol specifics. Funding from GEF to help undertake this exercise.</p>
<p>Traditional knowledge, innovations and practices of ILC, customary use, are respected and integrated into the Convention, ILCs participate at all relevant levels</p> <p>Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels</p>	<p>Local communities represented at expert meetings of the CBD. Active Folk Research Centre activities keeping traditional knowledge of country alive, including biodiversity related traditional knowledge. Jounen Keywol celebrations held every year around October where these traditions are celebrated. Forestry Department working with Latanye Broom producers to keep broom making tradition alive and with mauby producers to sustain mauby as a refreshing and medicinal beverage. Forestry department cultivating latanye plants, cocothrinax barbadiensis. Fat poke also under cultivation, seedlings produced as fire prevention systems outplanted. Non timber forest products and craft industries encouraged with traditional knowledge roots. Incense producers under research to make extraction more sustainable. Traditional pilot whale harvesters, conch harvesters, sea turtle and sea urchin harvesters managed and assisted by Fisheries Department. Draft biodiversity legislation takes into account access and benefit sharing (ABS) and to be fine tuned to include Nagoya Protocol on ABS. Comanagement of natural resources by government and communities or communities and private sector promoted, draft procedures manual for biodiversity research produced</p>
<p>Biodiversity science and technology are improved, shared and applied</p> <p>Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.</p>	<p>Still to be further developed. Lencens tree currently girdled and killed to remove incense as sap. Research currently being carried out on island to help tree to remain alive after removing sap. Technology transfer has occurred through training of various personnel including production of Fishing Aggregate Devices (FADS) for fisheries personnel, resource monitoring and assessment methods, wildlife management technology, coastal habitat mapping, ecological gap analysis for protected areas, sustainable harvesting techniques, wildfire management techniques; disaster management/ hazard mapping, geo-engineering for watershed conservation, constructed wetlands for sewage treatment.</p>

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	<p>A Biodiversity Resource Centre is to be developed at the Saint Augustine Campus of the University of the West Indies to meet the needs of the Caribbean islands. Funding will be further needed in this regard. Funding for south-south cooperation should be provided. Intellectual property rights should be activated in the country to help the more efficient sharing of science and technology.</p>
<p>A substantive increase in financial resources invested in biodiversity is achieved</p> <p>Target 20: By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan 2011-2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resources needs assessments to be developed and reported by Parties.</p>	<p>Government has committed monies to biodiversity as biodiversity coordinator and secretary are being paid by government. A project called Managing Biological Resources was paid for completely by local funds. More monies need to be committed to biodiversity as biodiversity needs to be made an official unit or section in the Ministry of Agriculture, Lands, Forestry and Fisheries and the staff need to become officially attached to that section. Funding from GEF, USAID, CIDA, OAS, EU also assisted development of biodiversity activities and management practices on the island. Mechanisms of financing biodiversity management in country need to be made sustainable. Help needed in this regard. The sustainable financing project soon to come on stream should start work in this regard but much more needs to be done for it to develop in an optimal fashion.</p>