

The National Biodiversity Strategy and Action Plan, Its Implementation and the Mainstreaming of Biodiversity

2.1 INTRODUCTION

This section begins with a brief description of the Thematic Programs of Work established by the Convention of Parties (COP) and the key matters of relevance to those thematic areas, i.e. the Cross-Cutting issues, followed by listing of the National Goals and Broad Objectives of biodiversity conservation in Sri Lanka. The Biodiversity Targets in Sri Lanka specified in the 'Biodiversity Conservation Action Plan', commonly referred to as BCAP, and 'Addendum to the BCAP' is presented next. The actions taken to implement the convention, since submission of the Fourth National Report (2009) and their outcomes are then summarized, where the specific outcomes are achieved, their contributions to national actions, and any obstacles hindering implementation of recommended actions are then highlighted. The effectiveness of mainstreaming biodiversity into relevant sectoral and cross sectoral strategies, plans and programs are further explored. Finally, it presents the level of achievement of recommended actions included in the BCAP and Addendum, individually and collectively.

2.1.1 Thematic Programs and Cross-Cutting Issues Established by the CBD

The revised and updated 'Strategic Plan for Biodiversity', including the Aichi Biodiversity Targets for the 2011 – 2020 period, which was adopted at the meeting of the Conference of the Parties (COP), held from 18 to 29 October 2010 in Nagoya, Japan, provides an overarching framework on biodiversity, not only for the biodiversity-related conventions, but for the entire United Nations system. All the parties to the convention are engaged in biodiversity management and policy development specified under the 20 headline targets which are organized under five strategic goals⁴⁵.

The Conference of the Parties (COP) agreed to translate this international framework into a revised and updated National Biodiversity Strategies and Action Plan (NBSAP) within two years and to prepare the Fifth National Report mainly focusing on reporting the implementation of newly updated NBSAP. The COP has established seven thematic programs of work, which correspond to some of the major biomes on the planet, including: (1) Agricultural Biodiversity; (2) Dry and Sub-humid Lands Biodiversity; (3) Forest Biodiversity; (4) Inland Waters Biodiversity; (5) Island

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Biodiversity; (6) Marine and Coastal Biodiversity, and (7) Mountain Biodiversity. Each program establishes a vision for, and basic principles to guide future work. They also set out key issues for consideration, identify potential outputs, and suggest a timetable and means for achieving these objectives. Implementation of the work programs depends on contributions from Parties, the Secretariat, relevant intergovernmental and other organizations. The COP has also initiated work on key matters of relevance to all thematic areas.

These Cross-Cutting issues correspond to the issues addressed in the Convention's substantive provisions in Articles 6-20, and provide bridges and links between the thematic programs. Some cross cutting initiatives directly support work under thematic programs, for example, the work on indicators provides information on the status and trends of biodiversity for all biomes. Other initiatives develop discrete products quite independently from the thematic programs. The work done for these cross-cutting issues has led to a number of principles, guidelines, and other tools to facilitate the implementation of the Convention and the achievement of the 2010 biodiversity targets.⁴⁶

2.1.2 National Goal and Broad Objectives of Biodiversity Conservation

The overall National Goal of Biodiversity Conservation, as stated in the BCAP, is to 'conserve the biological diversity of Sri Lanka, while fostering its sustainable use for the benefit of the present and future generations'. In order to achieve this goal in the long term, the following five broad objectives were set out:

1. To build capacities and develop programs for gaining a better understanding of the different components of the country's indigenous biological diversity and the processes that govern their functioning.
2. To identify adverse impacts (including potential impacts) on the different components of biodiversity; to take action to mitigate such impacts and to avert potential adverse impacts.

⁴⁶ Aichi Biodiversity Targets; Access to Genetic Resources and Benefit-sharing; Biodiversity for Development; Climate Change and Biodiversity; Communication, Education and Public Awareness; Economics, Trade and Incentive Measures; Ecosystem Approach; Gender and Biodiversity; Global Strategy for Plant Conservation; Global Taxonomy Initiative; Impact Assessment; Identification, Monitoring, Indicators and Assessments; Invasive Alien Species; Liability and Redress; Protected Areas; Sustainable Use of Biodiversity; Tourism and Biodiversity; Traditional Knowledge; Innovations and Practices; Technology Transfer and Cooperation.

3. To build capacities and develop programs to enhance the populations of species those are in demand and are under threat due to excessive collection.
4. To manage bioresources so as to conserve biodiversity while enabling the use of the resources within sustainable limits.
5. To enhance public awareness on biodiversity and encourage public participation in its conservation.

2.2 The Biodiversity Targets Set by Sri Lanka

In the context of Sri Lanka, action taken to incorporate those 20 headline targets specified under five strategic goals through development of appropriate national targets to produce an updated NBSAP was limited to formulation of the 'Biodiversity Conservation Action Plan' (BCAP), which was undertaken in response to Article 6 of the Convention of Biological Diversity in early 1996 and finalized in 1997, and later in 2003, preparation of an 'Addendum' to the BCAP. These two documents serve as the key strategic action plans as of today showing the pathways to achieve the key objectives governing biodiversity conservation in Sri Lanka, and are discussed in turn.

A strategy for the preparation of a National Biodiversity Action Plan was developed by IUCN Sri Lanka in 1994. This was followed by the preparation of a Biodiversity Conservation Action Plan (BCAP), which was approved by the Cabinet in 1998 and published in 1999. It sets out the range of activities needed for addressing biodiversity as a coordinated, holistic exercise, and urges that biodiversity conservation is of critical importance for the ecological and economic sustenance of the nation, and brings together within a single framework, all activity areas that need to be addressed.

For the preparation of the BCAP, the ecosystem diversity of Sri Lanka was categorized into four broad thematic areas: (1) Forests; (2) Wetlands; (3) Coastal and Marine systems, and (4) Agricultural systems, which are somewhat parallel to the thematic work programs identified under the CBD in ecosystems that are of relevance to Sri Lanka (Table 2.1).

Table 2.1: Classification of specific objectives and recommended actions in the BCAP thematic areas

| Thematic Areas Identified in the BCAP | No. of Specific Objectives | No. of Recommended Actions | Corresponding Area in the CBD |
|---------------------------------------|----------------------------|----------------------------|-------------------------------|
| 1. Forests | 7 | 24 | Forests |
| 2. Wetlands | 3 | 16 | "Inland Waters" |
| 3. Coastal and Marine Systems | 5 | 28 | Coastal and Marine |
| 4. Agricultural Systems | 3 | 6 | Agricultural |
| Total | 18 | 74 | |

This classification, besides signifying an ecological differentiation, is useful in terms of the division of responsibilities between different organizations of government. In turn, several specific objectives were set to be achieved under each thematic area. To achieve those specific objectives, in particular, and the broad national objectives for biodiversity conservation in Sri Lanka in general, a number of Recommended Actions were included under each thematic area. In addition to the 4 thematic areas listed above, the BCAP identified specified objectives, recommended actions, and main implementing institutions for several Cross-Cutting areas, including: (A) Priority action of selected Bioregions; (B) Ex-situ conservation; (C) Research; (D) Education and awareness; (E) Biodiversity information; (F) Legal matters; (G) Institutional support, and (H) Valuation of biodiversity (refer to: BCAP, 1997).

In summary, the BCAP comprised of 74 Recommended Actions to achieve 18 specific objectives listed under 4 thematic areas and another 73 recommended actions to achieve 22 specific objectives listed under 7 cross-cutting areas, and serves as the key document governing the national policies, programs, projects and strategies towards biodiversity conservation in Sri Lanka.

There has not been a systematic approach to upgrade the BCAP by including measurable national targets developed in line with the Aichi Biodiversity Targets of the Strategic Plan for Biodiversity 2011-2020.

2.3 Updating the National Biodiversity Strategy and Action Plan to Incorporate Targets and to Serve as an Effective Instrument for Mainstreaming Biodiversity

With the objective of updating the BCAP to serve as an effective instrument, the Minister of Environment appointed the Second National Experts Committee on Biological Diversity in 2003. The 'Addendum' to the BCAP coming out of this exercise consists of 102 recommendations made by the 16 Task Force Teams⁴⁷, and 31 out of which 45 were categorized as "high priority category"⁴⁸ (refer to: Addendum to the BCAP, 2003).

Since then, there has not been an effective and systematic mechanism in place to upgrade the BCAP by including measurable targets, especially to incorporate those Aichi Biodiversity targets to NBSAP.

2.4 Actions Taken to Implement the Convention since Submission of the Fourth National Report and their Outcomes

The key actions taken, major outcomes achieved and obstacles encountered through implementation of 74 Recommended Actions stated in BCAP thematic areas (i.e. Forest, Wetlands, Coastal and Marine systems, and Agricultural systems) are highlighted in Table 2.2, 2.3, 2.4 and 2.5, respectively. Table 2.6 reports the same for the 31 Priority Recommendations listed in the Addendum to the BCAP.

The impacts of actions implemented on prevention/mitigation of threats identified in Part I of this report are provided in Annex 6.

47 The 16 Thematic and Cross-cutting areas identified were as follows: (i) In-situ conservation; (ii) Ex-situ conservation; (iii) Access to genetic resources; (iv) Traditional knowledge and cultural biodiversity; (v) Impacts on biodiversity; (vi) Sustainable use and benefit sharing; (vii) Biosafety; (viii) Biodiversity valuation and economics of conservation; (ix) Policies, strategies and action planning; (x) Monitoring and co-ordination; (xi) Institutional aspects and capacity building; (xii) Legal framework on biodiversity conservation; (xiii) Education, awareness and training; (xiv) Research, development and technology transfer; (xv) Information management, and (xvi) Agricultural biodiversity.

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Table 2.2 - Key actions taken, major outcomes achieved, and obstacles faced for BCAP thematic area: "Forest"

| No | Recommended Action | Key Actions Taken Since the 4th National Report and The Major Outcomes | Obstacles Faced in Implementations |
|----|---|---|--|
| 1 | Develop a system for the regular monitoring of forest biodiversity, and take remedial action to rectify any negative trends as and when necessary, including threats from invasive species. | Since the 4th National Report, no systematic monitoring of biodiversity was done at national or regional level. However, several assessments of isolated nature have been carried out in number of locations, including Kanneliya Biosphere Reserve, and few other places. Biodiversity assessment carried out in Kanneliya Biosphere Reserve indicates that the species composition in the forest has changed. Pioneer and secondary species in the forest have reduced, and primary species have increased. | A country wide biodiversity monitoring is generally an expensive activity. Initial biodiversity assessment (National Conservation Review) was carried out during 1992 – 1996 with financial support from Forestry Sector Development Project (FSDP). Since then, systematic country wide monitoring of biodiversity was not undertaken primarily due to (1) Lack of financial resources; (2) Non-availability of expertise in the Forest Department for systematic country wide biodiversity monitoring; (3) This activity gets low priority in regular annual programs. |
| 2 | Take effective action to stop further encroachments on the wet zone forests (bioregions 4, 5 and 6). | Forest Ordinance was amended in 2009 and legal provisions regarding preventing encroachments were strengthened, and as a result, encroachments in the forests have been reduced. | Prevention of encroachments is a regular forest protection program in both FD and DWLC. Inadequacy of staff is a significant barrier for doth departments for more effective prevention of encroachments |
| 3 | Take action to prevent the use of high-forest areas and fragile ecosystems for chena cultivation. | This is carried out on regular basis, as it is a normal forest protection activity of the FD and DWLC. | Main barrier to prevent the use of forest areas and fragile ecosystems for <i>chena</i> cultivation is poverty. Due to this situation, some village people in very remote areas do <i>chena</i> cultivation as their livelihood. Most of them do not have their own private lands for cultivation of their crops; hence, they tend utilize the forest lands for cultivation. |

| No | Recommended Action | Key Actions Taken Since the 4th National Report and The Major Outcomes | Obstacles Faced in Implementations |
|----|--|--|---|
| 4 | Complete the preparation of management plans (including surveying and boundary marking) for all protected areas; ensure that such plans continue to recognize the participatory role of communities living in proximity to the areas under protection and adequately address the conservation and sustainable use of biodiversity. | Management plans have been prepared for several protected areas, (Example: Revision of the Management plans of Sinharaja and Knuckles World Heritage Forests were completed in 2009). Several new/ revised management plans in place. Preparation of management plans has become a mandatory legal requirement according to the amended Forest Ordinance (2009) and Fauna and Flora Protection Ordinance (2009). | The main barrier for preparation of management plans for forest areas (including surveying and boundary marking) is non-availability of adequate financial resources to carryout surveying and boundary marking work. |
| 5 | Actively implement the conservation-management plans of protected areas, giving due attention to buffer zone activities involving the peripheral communities. | Management plans for protected areas are being implemented on regular basis, as this is a normal activity of the FD and DWLC. | No significant barrier for this program. |
| 6 | The Forest Department and Department of Wildlife Conservation to collaborate to strengthen their capabilities in protected area management. | Capabilities of two departments are strengthened independently. However, there is no significant collaborative effort for strengthening capabilities of FD and DWLC. | No significant collaborative effort for strengthening capabilities due to low priority in collaborative approaches. |
| 7 | Enhance field staff capability in pest management, protection against unlawful activities, and fire protection. | Enhancing field staff capability in pest management, protection against unlawful activities, and fire protection are regular programmes of relevant departments. Hence these activities have been carried out since the 4th National Report. | As these are regular programmes of relevant departments, there are no significant barriers for implementation of these programmes. |

| No | Recommended Action | Key Actions Taken Since the 4th National Report and The Major Outcomes | Obstacles Faced in Implementations |
|----|--|--|--|
| 8 | Define, demarcate and establish an optimal protected area system network utilizing scientific and distributional data available from the NCR, paying special attention to the conservation of endemic species of plants and animals. | Define, demarcate, and establish an optimal protected area system network has been partially completed. Further, the FD has demarcated and gazetted a large number of protected areas since the 4th National Report. Thirty two (32) Conservation forests and large number of Forest reserves have been demarcated and gazetted after 2008. | This activity has been completed partially. Considerable forest areas are still to be surveyed and demarcated by the FD in order to complete the establishment of protected area system. As this activity involves high cost, lack of financial resources act as the main barrier. |
| 9 | Ensure that activities in forests outside protected areas are governed by management plans that pay adequate attention to the conservation of biodiversity. | No significant action in this aspect, and as a result, no significant outcome is seen. | Most of the forests outside protected areas are owned by private organizations and state agencies outside FD and DWLC. |
| 10 | Both within and outside protected areas, promote <i>in-situ</i> conservation activities that specially target threatened species. | The <i>in-situ</i> conservation activities targeting threatened species are being carried out within protected areas. Commercial logging operations in all the natural forests in the country are banned since 1990; therefore species in state forest areas are protected. Forest Ordinance, Fauna and Flora Protection Ordinance and National Heritage and Wilderness Areas Act provide the legal protection for flora and fauna species within protected areas. | No significant barrier for this programme within protected areas. But, no effective programme and legal protection for outside protected areas. |
| 11 | Establish a mechanism to continually expand and update the Forest Department's database on faunal and floral species in forests and other natural habitats. | A mechanism to continually expand and update the FD's database on faunal and floral species is not available. | Lack of financial resources act as the main barrier for this activity. |

| No | Recommended Action | Key Actions Taken Since the 4th National Report and The Major Outcomes | Obstacles Faced in Implementations |
|----|--|---|---|
| 12 | Strengthen research capacity and pursue research on the silvics of selected forest species, with a view to promoting natural regeneration of, or actively propagating, these species. | This is carried out by the Research Division of the FD on regular basis, as this is within their normal program. | No significant barrier for this program. |
| 13 | Review the issue of deniya permits for cultivation in forests in relation to the impact of this practice on biodiversity. | This recommended action has been recognized as not relevant as this practice of issuing <i>deniya</i> permits have been abandoned around year 2000. | This practice has been abandoned some years back. |
| 14 | Strengthen research capacity and pursue research to determine sustainable use thresholds for selected forest species. | This has not been done effectively, and as a result, there is no significant outcome is there. | This activity has not been recognized as a priority action. |
| 15 | In forest extension work, promote the use of selected indigenous species of timber, medicinal plants, and food and fibre producing plants, targeting home gardens, private woodlots, etc. | This is carried out as a regular programme. FD annually raise over one million seedlings for forestry extension work, majority of these seedlings are indigenous species of timber, food and fruit seedlings. | No significant barrier for this activity. |
| 16 | Promote the conservation and propagation of indigenous medicinal plants. | This has not been done effectively. | This activity is not a priority in FD programs due to inadequate co-ordination between the FD and Ayurveda Department. |
| 17 | Establish a suitable mechanism for ensuring co-ordination in the management of protected areas and the conservation of biodiversity between the Forest Department and the Department of Wildlife Conservation. | No effective mechanism for co-ordination, and as a result, no significant outcome is there. | Establishing an effective mechanism for co-ordination between the two departments for management of protected areas and the conservation of biodiversity has not been given adequate priority. |
| 18 | Expand programmes for afforestation, reforestation and forest rehabilitation, paying attention to the use of indigenous species as far as possible. | Indigenous species are being used by the FD in their afforestation and reforestation programs. | No significant barrier for this activity. Nevertheless, the timber value and growth rate of the tree species planted are important considerations in selecting tree species for planting by FD for timber production. |

| No | Recommended Action | Key Actions Taken Since the 4th National Report and The Major Outcomes | Obstacles Faced in Implementations |
|----|--|--|--|
| 19 | Promote the improved utilization of timber and the use of alternative materials in place of timber. | This is carried out to some extent by the State Timber Corporation (STC) under their annual research programme. | No significant barrier for this, but need to provide more emphasis on this aspect. |
| 20 | Organize skills enhancement and awareness programmes on biodiversity conservation for operational staff, NGO participants, CBO personnel and rural communities. | This is carried out on annual basis for operational staff of the FD and DWLC. This is being done for CBO personnel and rural communities by the FD under its Community Forestry Program. | No significant barrier for this program. However, funding is a limitation to undertake these programs extensively. |
| 21 | Establish forest plantations on currently non-productive land as entrepreneurial ventures in collaboration with the private sector to cater to the timber and fuel wood demand. | This is being carried out annually by the FD at present as a component of their normal program. | Funding is a limitation to undertake this activity at large scale. |
| 22 | Review legal instruments relating to the collection of forest plants and animals, including regulations relating to export, and amend in order to eliminate anomalies and strengthen the law, so as to afford protection to threatened species of indigenous plants and animals. | This has been carried out to some extent. Further amendments to legal provisions are needed. | No significant barrier for this. |
| 23 | Strictly enforce the laws relating to collection, possession, sale, and export of plants and animals protected by law. | This is carried out as a regular activity of the FD and DWLC. | No barrier for this activity. |
| 24 | Expand and maintain the program of setting up urban forests, and develop educational and awareness programs in relation to these forests. | This has been carried out in several areas. | No barrier for this activity. |

Table 2.3 - Key actions taken, major outcomes achieved, and obstacles faced for BCAP thematic area: "Wetlands"

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|--|---|---|
| 1 | Continue to develop strategies and plans for the management of wetlands. | Activities under the purview of the National Wetland Policy and National Wetland Steering Committee are in effect to some extent. | Lack of coordination between institutions hinders effective implementation. |
| 2 | Strengthen and enhance current efforts to identify critically important wetlands in terms of biodiversity, and prepare site reports and management plans where necessary. | National Wetlands Directory in collaboration with the CEA, IUCN and IWMI. However, this is not comprehensive enough, as it has not covered the North and East provinces of the country. | Lack of comprehensive information with respect to a complete array of wetlands and their biodiversity values / Lack of funds and commitment by the mandated institutions. |
| 3 | Prepare suitable maps and implement the management plans for wetlands, taking into account the need for collaboration between the several state institutions concerned, including the provincial administration, and based on participatory management principles. | The Strategic Environmental Assessment carried out for the Northern Province identified wetlands as a critical habitat. Also, Wetland Mapping carried out for Ampara district in the Eastern Province. | Lack of funds and adequate specialized staff are limitations to undertake activities at large scale. |
| 4 | Increase public awareness of the importance of wetlands and their benefit to local communities through the print and electronic media (government departments in collaboration with the private sector, media and NGOs). | The CEA individually and with the aid of NGOs carried out several environmental awareness programs for various target groups. Also, annual events are organized to celebrate the Wetland Day. Wetlands Magazine has been published regularly. | Lack of funds and adequate specialized staff are limitations to undertake activities at large scale. |
| 5 | By prohibiting or strictly regulating collection from the wild and adopting active measures, promote the conservation of aquatic fauna and flora species under threat. | The Flora and Fauna Protection Ordinance (2009) was amended targeting better protection of wetlands and their biodiversity. | Lack of human resources to enforce the law properly. |
| 6 | Carry out a comprehensive awareness program to combat disposal of household and industrial refuse into wetlands and enhance capability for law enforcement. | Implementation of "Pilisaru" Garbage Management Project by the CEA. The Urban Development Authority (UDA) implement the household garbage disposal project. | Lack of funds, adequate specialized staff on scientific land filling, and community awareness act as limitations to undertake these activities. |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|---|--|--|
| 7 | Increase the use of wetlands for education and eco-tourism. | There are certain private sector initiatives towards utilization of some wetlands for educational purposes. | Lack of availability and access to valid information. |
| 8 | Strengthen the capability of NARA and other relevant state institutions for regular monitoring of freshwater aquatic-biodiversity, in collaboration with universities and NGOs, and provide guidelines where necessary. | There is properly designed and active system in place. | Lack of coordination between institutions, resulting from funds, staff and interest, hinders effective implementation. |
| 9 | Carry out studies on the impact of introduced exotic species of fish, and measures for their control if found to be harmful to indigenous wetland biodiversity. | No systematic program in effect | Lack of interest and resources, both physical and finance. |
| 10 | Undertake research programmes to culture threatened freshwater flora and fauna with emphasis on economically important species including those that are commonly exported. | Small to medium-scale research programs funded by the Treasury were carried out annually. | Lack and proper release of funds, qualified staff constraint effective implementation. |
| 11 | Assist those in the aquarium trade to culture organisms for export with stringent monitoring and control by the state sector through a licensing scheme. | Monitoring program has been conducted by Sri Lanka Customs in order to verify quantities of freshwater fishes and aquatic plants. | Lack of interest from responsible institutions. |
| 12 | Increase national funding for wetland associated research, with special emphasis on the ecology and culture of endangered and economically important freshwater species. | There is no effective program in effect. | Not identified as a priority area. Lack of local or foreign funding to initiate programs. |
| 13 | Ensure that the forests identified as important hydrologically through the NCR study are brought within the protected area system and given strict protection. | Forest identified by the NCR as priority forest, has been surveyed, declared as conservation forest, as included in the protected areas network. | Inadequacy of funding to continue the survey and declared program for the balanced forest areas. |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|--|---|--|
| 14 | Enforce the legal provisions for protecting river and stream reservations. | National Policy on Protection and Conservation of Water Sources, which includes a review of existing laws of conservation of water sources, was drafted. It is still not approved by the Cabinet of Ministers. Lack of enforcement of laws at present. | Lack of coordination with the Department of Irrigation. |
| 15 | Review the legal framework that relates to the conservation of wetlands, identify gaps and rectify as necessary either through strengthening existing laws or enactment of new laws pertaining to wetlands. | Certain revisions were made by the CEA and Department Agrarian Services. | Poor coordination and not in priority areas to allocate funds adequately and on time. |
| 16 | Examine government policies that may promote adverse activities concerning wetlands (e.g. reclamation of wetlands for urban development), and recommend remedial measures thorough the National Wetlands Steering Committee. | National Policy on Protection and Conservation of Water Sources, which includes a review of existing laws of conservation of water sources, was drafted. It is still not approved by the Cabinet of Ministers. However, adverse impacts have not been reviewed. | No coordination and plan to receive information on adverse activities to the Steering Committee. |

Table 2.4 - Key actions taken, major outcomes achieved, and obstacles faced for BCAP thematic area: "Coastal and Marine Systems"

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|--|---|--|
| 1 | Strengthen and enhance current efforts to conduct a comprehensive fish resource assessment in Sri Lankan marine waters and an assessment of sustainable levels of harvesting for the food fishery. | Based on the NARA Annual Action Plan, comprehensive survey-based research studies on large and small pelagic fish species are in progress | - |
| 2 | Promote the preparation of management plans for the sustainable use of the fisheries resource, taking into consideration the establishment of fisheries reserves where necessary and regeneration of the near shore fishery resource. | Sustainable fisheries management on selected areas and species with economical value. Certain amendments were made to the Fisheries Act. | Lack of emphasis on conservation of certain economically valuable fish resources |
| 3 | Promote research programmes to determine the sustainable levels of fish catches | Included in the NARA Annual Action Plan. Analysis and subsequent publications on impacts of harmful gears that are on progress. | - |
| 4 | Monitor the extent and sustainability of harvesting coastal resources such as ornamental fish, sea cucumber, molluscs, sponges and other species with a market demand. | Monitoring activities have been carried out in selected areas and some reports and publications were made. | Lack and proper release of funds, qualified staff constraint effective implementation. |
| 5 | Initiate and strengthen research for ex-situ cultivation of economically important coastal and marine species and identify alternatives to selectively exploited species where possible; disseminate results to the industrial sector through seminars, workshops and training programmes. | Several awareness program, seminars and workshops conducted that helped promotion of knowledge transfer to the relevant authorities. | Lack and proper release of funds, qualified staff constraint effective implementation. |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|---|--|--|
| 6 | Initiate a comprehensive programme to study wild stocks of marine mammals in Sri Lankan waters, the catch estimates and the feasibility of alternative income generation through eco-tourism, and carryout an islandwide awareness campaign to stop the killing and sale of flesh of these species. | Initiated project work in collaboration with the universities | Lack and proper release of funds, qualified staff constraint effective implementation. |
| 7 | Preserve seagrass beds and encourage use of resources via proper in-situ culture and harvest practices among local communities and entrepreneurs. | Projects on seagrass are in effect. Awareness program for local communities completed and in place. GIS Mapping is being carried out. | Lack and proper release of funds, qualified staff constraint effective implementation. |
| 8 | Strengthen and enhance current efforts to map the biological resources, including corals, seagrass beds etc. in the coastal waters of Sri Lanka based on Geographical Information Systems (GIS). | Preparation of maps through GIS is in effect to produce resource maps. | - |
| 9 | Carryout scientific biodiversity assessment of coral reefs and other important marine systems to identify a minimum network of marine reserves to conserve the totality of marine biodiversity based on principles similar to the National Conservation Review of Forests. | Few isolated assessments have been done in selected areas (e.g. Wankarei, Silavathura, Bar reef). However, no proper network has yet been established. | No coordinated program. Lack and proper release of funds, qualified staff constraint effective implementation. |
| 10 | In collaboration with relevant state agencies, user groups and communities, prepare management plans for identified marine protected areas to conserve biodiversity, strengthen capabilities for management. | Awareness programs have been conducted in collaboration with the state sector institutions to provide data/information on bar reef marine sanctuary. Assessment reports were prepared in collaboration with the state sector agencies. | - |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|--|--|--|
| 11 | Prepare and implement management plans and strengthen capability among stakeholders for conservation and management of mangrove areas using a participatory approach. | Awareness programs were conducted with the support of NGOs to promote conservation and effective management of mangroves. Management plans have, however, not yet been prepared. | - |
| 12 | Examine and monitor effects of fishing methods that may have adverse effects on biodiversity, and take appropriate action. | NARA Annual Projects on impact of fishing gears and monitoring activities carried out by the Fisheries Department. The findings are disseminated as reports to relevant authorities. | - |
| 13 | Enforce, strictly the current laws against the use of explosives, illegal types of fishing gear and harvesting of juvenile and gravid lobsters in the sea. | Implementation of regulations based on the Fisheries Act | - |
| 14 | Strengthen capabilities to enforce existing regulations against the slaughter of small cetaceans and turtles (including harvesting of their eggs), and provide better protection for feeding, breeding and nesting grounds of marine species, including licensing and state monitoring of turtle hatcheries. | Researches and continuous monitoring is being carried. Provision of data/information to take appropriate actions. | - |
| 15 | Control the expansion of prawn farms into mangrove areas and salt marshes to prevent excessive biodiversity loss, and preserve all biodiversity rich areas as habitats for aquatic fauna and flora. | Awareness programs have been conducted. Expansion is controlled to some extent. | Lack and proper release of funds, qualified staff constraint effective implementation. |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|---|--|--|
| 16 | By prohibition or strict regulation of collection from the wild and other active measures, promote the conservation of coastal and marine species of fauna and flora of species under threat. | 2009 Amendment of the Fauna and Flora Protection Ordinance - strictly protected list - Reptile, mammals, amphibians, whale, wetland birds. Proposals were made to conduct on Marine species in Yala, Kumana and Wilpattu. Legal actions are being taken to impose penalties. | - |
| 17 | Increase institutional capacity for strict enforcement of laws against sand and coral mining. | Controls being made under the Acts of CCD and MPP. | Lack of coordinated action and funds, qualified staff constraint effective implementation. |
| 18 | Promote policy incentives for the use (including the import) of substitutes for coral based lime in the building industry. | Persuade through alternative plans and recommendations. | - |
| 19 | Carryout research in collaboration with universities and the private sector to produce alternative materials to replace marine coral-based lime for the building industry and to promote designing that obviates the use of lime plaster. | Alternatives have been introduced for lime based products. | - |
| 20 | Develop capacity among entrepreneurs and guidelines for aquaculture that take into account preservation of the natural environment. | Carried out and recommendations are provided by the NARA and NAQDA to some extent. | Lack and proper release of funds, qualified staff constraint effective implementation. |
| 21 | Initiate and promote research programmes to determine the effects of sea level rise on marine and coastal habitats. | No activities are currently exercised. Plans are been made on future research programmes. | Lack of funds |
| 22 | Establish a strong and effective cordinating mechanism to secure the collaboration of all the concerned institutions in effective management of coastal zone. | Appointed 70 officers out of 325 areas to cordinate activities by CCD for effective management. | - |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|--|--|--|
| 23 | Initiate action in collaboration with agricultural and irrigation authorities and provincial/regional bodies to prevent siltation of lagoons, estuaries and marine ecosystems due to soil erosion inland. | Undertake by the Department of Agriculture (effective areas: Govijanaseva and Kudawewa) | - |
| 24 | Develop capacity for eco-tourism in selected coastal areas, with the participation of communities and local entrepreneurs, for viewing coral life, watching marine mammals, etc. | Whale watching is being conducted by communities in Mirissa and Puttlam. (Permission has been granted and regular monitoring is done). Revenue is being generated through eco-tourism. | - |
| 25 | Enlist support of NGO's and rural communities to establish woodlots in sand dunes adjoining mangroves, with fast growing fuelwood trees such as Casuarina, to ameliorate pressure on mangrove vegetation. | Certain projects aiming conservation of coastal environment are being conducted on ad-hoc basis. | Proper coordination is not there. |
| 26 | Develop and apply feasible methods for waste disposal from industries, tourist hotels and households in the coastal zone, through surveys, research and community projects. | Environmental Protection Licenses (EPL's) are being issued. Industrial database is available. | - |
| 27 | Commence awareness programmes for different target groups to mitigate adverse effects of pollution, coral reef damage and over-harvesting of species from coastal and marine ecosystems. | Projects and awareness programmes are being conducted for different target groups. Fisheries management has been included as a component in the subject of Fisheries Science. | Lack and proper release of funds, qualified staff constraint effective implementation. |
| 28 | Strengthen and expedite the preparation and implementation of the special area management programmes identified in "coastal 2000" and the CZM Plan of 1996, and extend the programmes to other coastal sites as necessary. | This has been expanded in 2003 | - |

Table 2.5 - Key actions taken, major outcomes achieved, and obstacles faced for BCAP thematic area: “Agricultural Systems”

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|---|--|--|
| 1 | Promote the leasing of suitable state land for agro forestry and mixed cropping on the traditional home garden pattern. | Various ad-hoc programs were carried out, but there was no major large-scale program at place at the national level with a coordinated effort. None availability of appropriate policy / legislation acts as major barriers to have favorable outcomes. | None availability of appropriate policy / poor coordination amongst the relevant institutions. |
| 2 | Improve co-ordination and provision of institutional support for home-gardens, which would include credit and technical assistance. | The government’s “ <i>Divi Naguma</i> ” program facilitates to some extent home garden owners to produce in excess amounts; but it runs at a minor scale with a very limited number of participants. | Lack of quality indigenous planting materials in right amounts and on time for cultivation. Absence of mechanism to develop proper agricultural markets and credit facilities. |
| 3 | Facilitate access (by farmers) to seed material of indigenous varieties. | There exist certain joint programs conduct by the Department of Agrarian Services, Department of Agriculture, Department of Export Agriculture and Coconut Cultivation Board. However, these programs could not fulfill the demand, as for the most part, limited supply of materials is observed. | No adequate supply of seed materials to tally the demand |
| 4 | Secure ownership of the land for farmers and leaseholders who demonstrate their commitment to conservation of biodiversity in their landholdings. | Although this is considered as a burning issue, no proper actions were taken to resolve it. | There is no coordination amongst responsible institutions. |
| 5 | Provide economic incentives for the popularization of conservation farming; these could include fiscal measures, provision of services, improvements in land and tree tenure, training and awareness creation, etc. | Some of the Donor funded project and NOG programs concentrate on this aspect. The government’s “ <i>Divi Neguma</i> ” program and the new program initiated by the Ministry of Agriculture is in effect, but not at large-scale to have a substantial impact. | No novel programs initiated due to lack of awareness and coordination amongst major stakeholders. |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|--|---|---|
| 6 | Provide incentives and technical and other assistance for integrated farming in coconut, and support research on such activities under rubber and tea. | The previous Perennial Crop Development project is in progress. Department of Agriculture, Department of Export Agriculture and Coconut Cultivation Board conduct scattered programs. | Funding and adequate number of staff are major limitations to undertake this activity at large scale. |

Table 2.6 - Key actions taken, major outcomes achieved, and obstacles faced for priority recommendations in Addendum to the BCAP

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|---|--|---|
| 1 | Identify critically important BD hotspots and linkages outside PA network and bring them under protection. | Carried out the National Conservation Review (NCR) and a Gap Analysis | Lack of Funding / Social and political support / Appropriate legal framework. |
| 2 | Prepare and implement recovery plans for threatened species. | Identification and develop suitable recovery measures for threaten species. Revisions were made to the Fauna & Flora Protection Ordinance to include additional protected species. | Gaps in research and information. |
| 3 | Establish more ex-situ conservation facilities such as botanical gardens and Zoological gardens and rescue and rehabilitation centers in suitable areas under relevant state institution. | Establishment of Botanical Gardens in Hambantota and Avissawella / Establishment of Medicinal Plant Gardens at Haldumulla, Giradurukotte, Pinnadoowa and Nawinna / Proposed Zoological Garden at Pinnawala / Expand the activities of Elephant (Animal) orphanage at Udawalawa / Establishment of Elephant holding ground Horowpatana (Anuradapura). | Inadequate funds are the major issue in all these projects. |
| 4 | Develop a database and register of all local and foreign institutions and their collections dealing with ex-situ conservation. | Databases and registers are being maintained by the DWLC for Elephants and Turtles / Database has been established & maintained for Ex-situ collection at botanical gardens & Department of Ayurveda. | Difficulty in getting information from private sector / inadequate funding / lack of expertise. |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|---|---|---|
| 5 | Develop a national policy, regulations, procedure, guidelines (MTA, PIC, Sui generis system), Benefit sharing mechanisms etc for access to genetic resources. | Develop the policy on access to genetic resources and benefit sharing / Development of draft Act on access to genetic resource and benefit sharing (draft Act has been submitted to legal draftsman). | Administrative issues |
| 6 | Develop and implement consultative process, including public consultation on access regulatory mechanisms for access to genetic resources. | Consultative process has been established for development of policy and legislation on access to genetic resources. | - |
| 7 | Regional identities and sentimentalities be harnessed to biodiversity conservation and living in harmony with nature. | Rights of indigenous people are recognized by the government / "Vannilaetto Trust Fund" has been established. | - |
| 8 | Establish a National Register of Traditional Knowledge, including agricultural biodiversity (Adopt Defensive Documentation). | Completed traditional knowledge compendium in three volumes | Lack of funds / Hesitation to provide information on traditional knowledge. |
| 9 | Legal protection to be provided to custodians of traditional knowledge. | No action was taken | - |
| 10 | Establish an Invasive Species Specialist Group. | Invasive Species Specialist Group was established by the Ministry of Environment. | - |
| 11 | Prioritize invasive alien species, including GMOs, terrestrial and aquatic species | Published the document on IAS (Invasive Alien Species) of Sri Lanka. | |
| 12 | Prepare a National Database on Invasive Alien species | Database on Invasive Alien Species (Flora & Fauna) was established in 2013. | Shortage of expertise |
| 13 | Provide funding for research on methods to control the spread of prioritized invasive alien species | Project on control of spreading of IAS. | - |
| 14 | Establish a task force to critically examine the impacts of all new cross-sectoral laws/policies/trade and access agreements and major developmental efforts on biodiversity conservation | Including laws, policies, trade, access agreements and development efforts. | - |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|--|---|-------------------------------|
| 15 | Formulate new policies to address conservation outside forests, integrating in-situ biodiversity concerns into land policy and wetland policy, and to bring in legislation for wetland conservation | No action was taken. | Not identified as a priority. |
| 16 | <p>The Minister of Environment and Natural Resources to appoint a National Biodiversity Information Management Committee to implement the computerized networking and establishment of a meta-database on the following:</p> <ul style="list-style-type: none"> a. Protected Areas and forest management data b. Medicinal plants and crop wild relatives c. Threatened animal species d. Herbarium and museum inventories relevant to biodiversity e. Invasive species f. Traditional knowledge relevant to biodiversity conservation and sustainable use | No action was taken. | Priority not identified. |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|--|---|--------------------------|
| 17 | <p>Cabinet to appoint a National Biodiversity Valuation Committee to formulate policies and procedures for the purpose of assessing economic benefits from biodiversity (giving due consideration to ethical and cultural values), proposing also a framework of tariffs and incentives designed to strengthen biodiversity conservation and assure the equitable sharing of benefits:</p> <ul style="list-style-type: none"> a. Aquatic resources b. Genetic resources c. Carbon and emissions trading d. Atmospheric emissions | No action was taken. | Priority not identified. |
| 18 | <p>The Ministry of Environment and Natural Resources to appoint a Expert Working Group to harmonize existing and proposed sectoral policies relevant to biodiversity conservation, including:</p> <ul style="list-style-type: none"> a. In and ex-situ conservation b. Access to genetic resources, traditional knowledge and benefit sharing c. Information management d. Wetlands | Biodiversity Expert Committee has been established by the Ministry of Environment & Renewable Energy. | - |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|---|--|---|
| 19 | <p>The human resources, technical capacity and infrastructure of the Biodiversity Secretariat of the Ministry of Environment and Natural Resources should be strengthened, so as to provide capacity to coordinate and monitor a comprehensive set of biodiversity indicators and programs, including the following:</p> <ul style="list-style-type: none"> a. Threatened species b. Impact of climate change c. Integrity of critical conservation areas d. Environmental pollution e. Invasive species | <p>Technical capacity has been partially strengthened / Existing vacancies in the biodiversity section need to be filled and capacity development as a urgent requirement.</p> | <p>Administrative issues</p> |
| 20 | <p>Cabinet to direct the Legal Draughtsman, in consultation with the Ministry of Environment and Natural Resources and other relevant Ministries and through a legal task force to identify the requirement of new legislation if any, and review the existing biodiversity related legislation with holistic approach for conservation and sustainable use of biodiversity and draft necessary bills and/or effect the necessary amendments.</p> | <p>FFPO and FO (Forest Ordinance) were amended based on a decision taken by the Ministry of Environment & Natural Resources to holistic approach for conservation and sustainable use of biodiversity.</p> | <p>-</p> |
| 21 | <p>Implement the National Biosafety Framework</p> | <p>Draft new Act on Biosafety was prepared in 2013 and the approval procedure is in progress</p> | <p>Disputes regarding the Act should be resolved.</p> |
| 22 | <p>Establish interim measures for biosafety until regulations and resources are in place</p> | <p>No action taken</p> | <p>-</p> |
| 23 | <p>Identify and improve laboratories for testing GMOs - Food Feed & Processed Products</p> | <p>Three GMO laboratories have been identified for Universities (Peradeniya, Colombo) and the Customs.</p> | <p>-</p> |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|--|---|-----------------------------------|
| 24 | Ensure biodiversity valuation and use in national income accounts and project evaluation. | Ministry of Environment and Department of Agriculture conducted two workshops for awareness and information gathering on biodiversity valuation. | - |
| 25 | Ensure innovative and sustained financing mechanisms for biodiversity conservation. | No action was taken. | Priority not identified. |
| 26 | Establish a strategic coordinating mechanism within Biodiversity Secretariat for implementation of BCAP (coordination should include integrating biodiversity into sectoral plans and programs). | No action was taken. | Funding and institutional issues. |
| 27 | Strengthening systematic & institutional capacity to implement BDFAP actions at policy & middle institutional level. | Capacity building programs are being carried out in related institutes. | - |
| 28 | Establish a coordinating body incorporating (NGO's) universities & NIE for human resource development (formal & informal sectors) in relation to all biodiversity related aspects. | No action was taken. | Not prioritized. |
| 29 | Establishing a special coordinating body under BDS to promote research on biodiversity related issues to ensure that all intra- and inter-disciplinary aspects are addressed. | A special coordination body has not been established for coordinating of biodiversity research; however the Code of Ethics for biodiversity research has been established by the biodiversity Secretariat / Research committees in DWLC and FD are functioning as a coordination body to coordinate biodiversity research related to these two departments. | - |
| 30 | Propagate the tenets of conservation agriculture through the education and agro-eco-tourism. | Agro-ecotourism activities are being promoted. | - |

| No | Recommendation | Key Actions Taken Major Outcome/s (Since 4th National Report) | Barriers to Implement |
|----|--|---|-----------------------|
| 31 | Formulate, adopt and implement appropriate legislative, regulatory and other related legal measures in order to conserve agricultural biodiversity and facilitate the Access, Sustainable Use and Equitable Sharing of Benefits of it. | No appropriate action was taken. | Not identified. |

2.5 Effectiveness of Mainstreaming Biodiversity into Relevant Sectoral and Cross Sectoral Strategies, Plans and Programs

Sri Lanka has made a significant progress in integrating biodiversity in to relevant sectoral and cross sectoral planning. In recent times, a number of positive steps have been taken to mainstream biodiversity in to relevant sectoral and cross sectoral plans, strategies and programs. Biodiversity Conservation Action Plan (BCAP) itself promotes this integration into other relevant sectoral plans and programs, both in public and private sector domain. Nevertheless, the outcomes of such actions do not yield expected results in some sectors due to inadequate coordinated functioning mechanisms, insufficient funds and human resources to implement them in a holistic manner. It is noticeable that biodiversity concerns are adequately integrated into the plans, policies and programmes of the agencies of environmental and related sectors such as forest, wildlife, wetlands, coastal and marine, fisheries, agriculture etc, while this cross sectoral integration is inadequate in the agencies of the development sectors (business/industrial and service sectors, including urban, harbor, tourism, mining, energy, road and telecommunication etc).

Overall, there are more than 30 state institutions and 15 laws directly involved in conservation and sustainable use of biological diversity in Sri Lanka. This institutional and legal framework provides an important framework to support maintaining of biodiversity in to sectoral and cross sectoral strategies, plans and programs. Those with greatest and direct responsibility for biodiversity conservation are the Ministry of Environment and Renewal Energy (MoERE), which is the focal point for the Convention on Biological Diversity, and other key state institutions such as the Forest Department (FD), Department of Wildlife Conservation (DWLC), Central Environmental Authority (CEA), Department of Agriculture (DOA), Department of National Zoological Gardens (DNZG), Department of National Botanic Gardens (DNBG), Plant Genetic Resources Centre (PGRC), Department of Export Agriculture (DEA), Coast Conservation Department (CCD), Department of Export Agriculture (DEA), Department of Fisheries & Aquatic Resources (DFAR), National Aquatic Resources Research and Development Agency (NARA), Department of Ayurveda, Sri Lanka Customs etc.

In addition, MoERE has further strengthened implementation mechanisms in policy, legislative and administrative measures including implementation of strategies, projects and programmes for biodiversity conservation and management. In this context, the major initiatives include: Establishment of National Steering Committee (NSC) on Biodiversity & Biodiversity Expert Committee, and integration of biodiversity concerns in Environmental Impact Assessment (EIA) of development projects under the National Environment Act (1988). Currently EIA is a mandatory requirement for any development project in any sector.

The main policy frameworks, legislations, strategies and action plans in place that drive the country in achieving all the objectives of the CBD and BCAP since the 4th national Report is provided in the Table 2.9.

Table 2.7: Key Policies/Plans & Strategies and Legislation relating to Conservation and Sustainable Use of Biodiversity in Sri Lanka

| Policies |
|--|
| <i>Mahinda Chintana</i> (A vision for a new Sri Lanka) (2006-2016) |
| National Policy on Climate Change of 2011 |
| National Livestock Breeding Policy 2010 |
| National Policy on Biotechnology of 2010 |
| The National Land Use Policy of 2009 |
| The National Policy on Agriculture of 2007 (deals with conservation of traditional varieties of crops) |
| National Physical Planning Policy and Plan of 2007 |
| Plans & Strategies |
| National Action Plan for <i>Haritha</i> (Green) Lanka Programme (2009) |
| Caring for the Environment, Path to Sustainable Development (2008) |
| Legislation |
| Fisheries and Aquatic Resources (Amendment) Act 35 of 2013 |
| Coast Conservation (Amendment) Act No. 49 of 2011 |
| The Forest Ordinance No. 16 of 1907, and its subsequent amendments, including Act No. 65 of 2009 |
| The Fauna and Flora Protection Ordinance No. 2 of 1937, and subsequent amendments including Act No. 22 of 2009 |

Source: (1). Sector Vulnerability Profile: Biodiversity and Ecosystem Services, National Climate Change Adaptation Strategy for Sri Lanka, Ministry of Environment, Sri Lanka, 2010

(2). IUCN, Sri Lanka Tropical Forest and Biodiversity Analysis, 2011

All these institutional, policy and legal framework together with plans and strategies already developed provide an adequate framework for implementation of BCAP recommendations and work towards achieving Aichi biodiversity targets and other biodiversity concerns relating to various sectors. However, even today, biodiversity concerns are not adequately integrated into the plans, policies and programmes of the agencies of the development sectors. The emphasis given by some development sector agencies for the need of biodiversity conservation when preparing and carrying out their plans and programmes is inadequate ⁴⁹.

2.5.1 Projects and programs contributed for strengthening capacities for biodiversity conservation:

During the recent years, various initiatives to develop national capacities for biodiversity conservation have been undertaken at different levels involving wide range of stakeholders. National level capacity building is a primary requirement for mainstreaming biodiversity into relevant sectoral and cross sectoral plans and programs. In this regard, large number of projects and programmes implemented in Sri Lanka after ratifying the CBD (1994) has served for this purpose to varying degrees. The main projects that have built capacity for biodiversity conservation in the country (planned, undertaking or completed since the 4th National Report) are given below.

49 Fourth Country Report from Sri Lanka to the CBD, 2009

Table 2.8: Project Related to Conservation and Sustainable Use of Biodiversity in Sri Lanka

| Project | Funding Amount | Objective |
|---|----------------|---|
| Locally Funded Projects (GOLS) (Funds in Rs. Millions) | | |
| 1. Species Conservation & National Biodiversity Hotspot Survey Programme for Sustainable Development | 19.5 | Conservation of environmentally sensitive sites and promote sustainable development through implementation of sustainable tourism programmes while creating awareness at both local and global levels |
| 2. Palaeobiodiversity Conservation and Sustainable Tourism Programme | 19.3 | Conservation of environmentally sensitive pale biodiversity sites and promote sustainable development through implementation of sustainable tourism programmes while creating awareness at both local and global levels |
| 3. Conservation and Sustainable Use of Microbial Diversity in Sri Lanka | 19.5 | Formulation of a national policy and preparation of action plan for conservation of microbial diversity in Sri Lanka and to integrate the aspects of the microbial conservation and sustainable use in to the national planning process with the special emphasis of microbial bio-prospecting |
| 4. Conservation and Sustainable Use of Mangrove Ecosystem & Its Diversity in Sri Lanka | 19.5 | Formulation of a national policy and preparation of action plan for conservation and sustainable use of mangrove ecosystem and its diversity in Sri Lanka and to integrate the aspects of the mangrove conservation and sustainable use in to the national planning process with the special emphasis of ecotourism enhancement of livelihood of the neighbor community |
| 5. National and Global Assessment of Flora & Fauna of Sri Lanka & Identification of Important Plant Areas | 18.0 | To achieve national goals of biodiversity by conservation and sustainable utilization of fauna and flora of Sri Lanka |
| 6. Implementation of National Policy on Traditional Knowledge for Sustainable Livelihood | 10.0 | Implementation of national policy on traditional knowledge for sustainable livelihood |
| 7. Proposal for the implementation of provincial biodiversity profiles and action plans | 19.5 | To achieve national goals of biodiversity conservation and sustainable use through successful implementation of the recommendations of the provincial biodiversity profiles and action plans |

| Project | Funding Amount | Objective |
|--|----------------|---|
| Foreign Funded Projects (GEF) (Funds in US\$) | | |
| 1. National Biodiversity Planning to Support the Implementation of the CBD 2011-2020 Strategic Plan in Sri Lanka | 200,000 | To integrate Sri Lanka's obligations under the Convention on Biological Diversity into its national development and sectoral planning frameworks through a renewed and participative 'biodiversity planning' and strategizing process, in a manner that is in line with the global guidance contained in the CBD's Strategic Plan for 2011-2020 |
| 2. Strengthening Capacity to Control the Introduction and Spread of Alien Invasive Species in Sri Lanka | 1,825,000 | To build capacity across sectors to control the introduction and spread of invasive species in Sri Lanka in order to safeguard globally significant biodiversity |
| 3. Mainstreaming Biodiversity Conservation and Sustainable use for Improved Human Nutrition and Wellbeing | 828,000 | Strengthening the conservation and sustainable management of agricultural biodiversity through mainstreaming into national and global nutrition, food and livelihood security strategies and programmes |
| 4. Mainstreaming Agro-biodiversity Conservation and Use in Sri Lanka Agro-ecosystem for Livelihoods and Adaptation to Climate Change | 1,450,455 | To ensure agro-biodiversity in Sri Lanka is optimally conserved and used to meet the challenges of climate change and improve rural livelihoods |

2.5.2 Other significant institutional programmes undertaken for strengthening capacity for mainstreaming biodiversity conservation:

The National Red listing exercise: Sri Lanka has been engaged in the preparation of nationally threatened species lists since 1989. New red list for threatened and endangered species have been prepared by MoERE with the assistance of IUCN in 2012. These actions have influenced policy and legislation for conservation of species biodiversity in the country; **Publication of a National Wetlands Directory** – Prepared by the Central Environmental Authority (CEA) in collaboration with the International Water Management Institute (IWMI) and IUCN, Sri Lanka, and is being updated every 3 to 4 years, and also web accessibility is provided to the policy planners in order to strengthen and enhance current efforts to identify critically important wetlands in terms of biodiversity, and prepare site reports and management plans where necessary; **Preparation of management plans for high priority wetlands:** Efforts are being made to prepare management plans for high priority wetlands and to prioritize wetland areas for better/ strict conservation; **Gazetting of Environmental Protection Areas:** Gazetting of 8 Environmental Protection Areas by the CEA under the National Environmental Act; **Integrated Strategic Environmental Assessment:** Integrated Strategic Environmental Assessment of the Northern Province by the CEA to prepare zoning plans for development of the region; **Ex-situ conservation:** Setting up ex-situ conservation facilities by the Department of Botanic Gardens in different climatic zones.

2.5.3 Mobilize stakeholders at multiple levels in support of biodiversity conservation:

Over the years, public awareness has been created in forest, wetland, coastal and marine and agriculture sectors on importance of biodiversity conservation. The public awareness programmes target two categories of target groups, school children and general public in the country. The forest and biodiversity conservation has been included in the school curricular of secondary schools, basic degrees as well as university postgraduate courses. Extension and public awareness activities are being implemented under the usual annual programs of the relevant institutions. Community participation in forest management is another aspect of public awareness created by the FD. Under the public awareness and extension programmes of FD and DWLC considerable amount of electronic, printed and other material have been developed during the last 15-20 years. Some of these are; video documentaries, maps, leaflets, brochures, trail guides, posters, booklets and other materials such as caps, T-shirts, stickers etc.

2.5.4 Further improvements needed:

- i) Biodiversity concerns are not adequately integrated into the plans, policies and programmes of the agencies of the development sector. According to the key stakeholders contacted, although the focus and due attention given to the biodiversity concerns associated with direct environmental (e.g. forestry, wildlife, wetlands, coastal and marine systems) and other environment related (e.g. agriculture and fisheries) sectors with respect to setting up of appropriate policies, legislation, plans/strategies and programs was improved, at a relatively slow pace but positively, such attention given to the development sectors (i.e. business/ industrial and service sectors, including urban, harbor, tourism, mining, energy, road and telecommunication networks), of which the relative contribution to national and economic development is much frequently highlighted, has still been inadequate.
- ii) Minimal efforts are in place with respect to mainstreaming of agricultural activities towards conservation of agro-biodiversity and to eliminate rural poverty. There is a need to provide traditional varieties of both plants and livestock in order to promote biodiversity conservation, and there exists a need to strengthen community level crop improvement programs (e.g. participatory plant breeding) towards establishing Community Seed Banks. Lack of responsible institutions with coordinated action, together with necessary funds and staff, makes it difficult to mainstream these activities.
- iii) Further, with regard to coordination of various sectoral and cross-sectoral strategies and activities, there has been no significant progress observed over time, although wider discussions are promoted with the respective stakeholder institutions (public, private and NGOs), which have, however, led to revisions in policies, strategies, management plans or action plans within and outside the environmental sectors. However, the stakeholders, in general, perceive that the bargaining power of these key institutions to effectively tackle such issues to maintain a right balance between the environmental management and economic development is not in favor of the former, especially with respect to the issues arising from large-scale infrastructure development projects.

2.6 Progress of implementation of the National Biodiversity Strategy and Action Plan

The level of implementation of the Recommended Actions included in the BCAP Thematic Areas and the Priority Recommendations listed in the Addendum (since the 4th National Report) was investigated. The outcome of analysis is presented below.

2.6.1 Implementation of Recommended Actions under the BCAP Thematic Areas

In order to complete this task, the expert views on the progress of implementation of each recommended action in BCAP thematic areas were obtained through “Expert’s Working Groups” formed to represent each of the BCAP thematic area (i.e. Forest, Wetlands, Coastal and Marine, Agricultural). The respective group was, in turn, asked to classify each and every recommended action under the particular BCAP thematic area to indicate its ‘level of completion’ into one of three categories, namely: (1) “Not satisfactorily achieved”; (2) “Partially Achieved”, and (3) “Satisfactorily achieved”.

2.6.1.1 Progress Related to “Forests”

In the context of thematic area of Forests in the BCAP, 9 out of 24 recommended actions (i.e. 37.5%) were completed to the satisfaction of key stakeholders. There were 8 recommended actions which were achieved partially, while another 6 recommendations were not achieved satisfactorily.

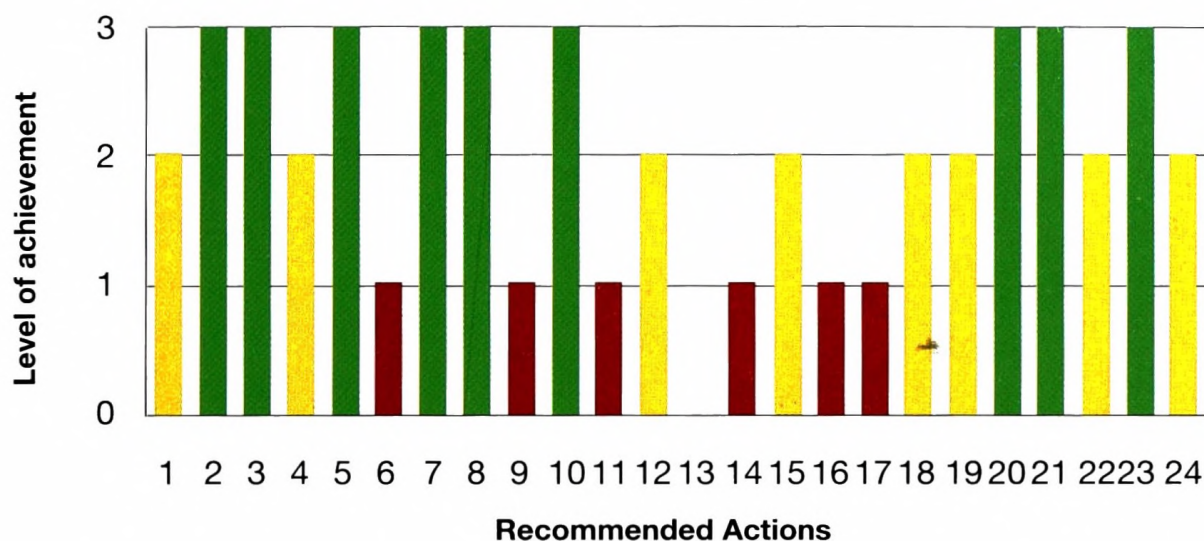


Figure 2.1 - Level of implementation of recommended actions in BCAP Thematic area of “Forest”

2.6.1.2 Progress related to “Wetlands”

Considering the thematic area of Wetlands in the BCAP, only 1 out of 16 recommended actions (i.e. 6.25%) were observed to be achieved satisfactorily. The actions taken to implement 10 out of 16 actions were not satisfactory (62.5%).

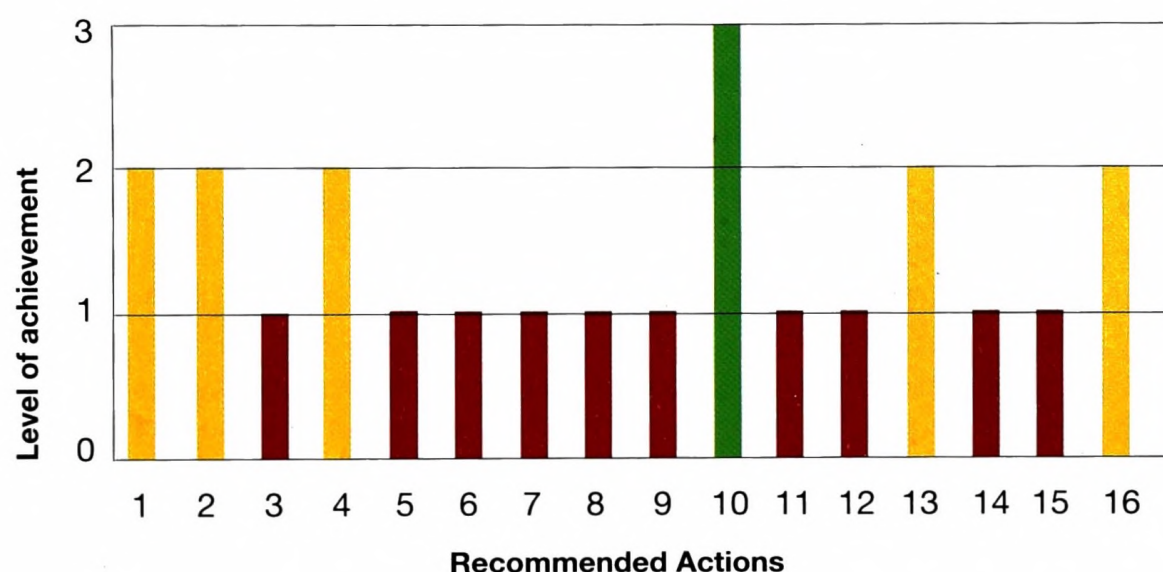


Figure 2.2 : Level of implementation of recommended Action in BCAP thematic area of "Wetlands"

2.6.1.3 Progress related to “Coastal and Marine Systems”

In the context of thematic area; Coastal and Marine Systems in the BCAP, only 1 out of 28 recommended actions (i.e. 3.5%) were achieved satisfactorily. The actions taken to implement 22 other recommendations were not satisfactory (62.5%), while the rest of the 5 recommendations were achieved partially.

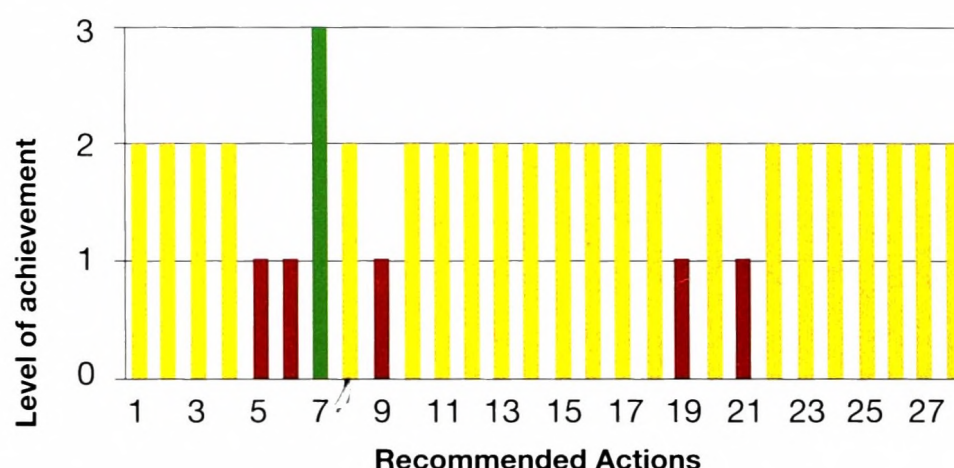


Figure 2.3 : Level of implementation of recommended actions in BCAP thematic area of "Coastal and Marine Systems"

2.6.1.4 Progress related to “Agricultural Systems”

In the context of thematic area; Agricultural Systems in the BCAP, none of the recommended actions were achieved satisfactorily. While 1 out of 6 recommendations were achieved partially, the level of implementation of other 5 recommendations were observed as unsatisfactory achieved.

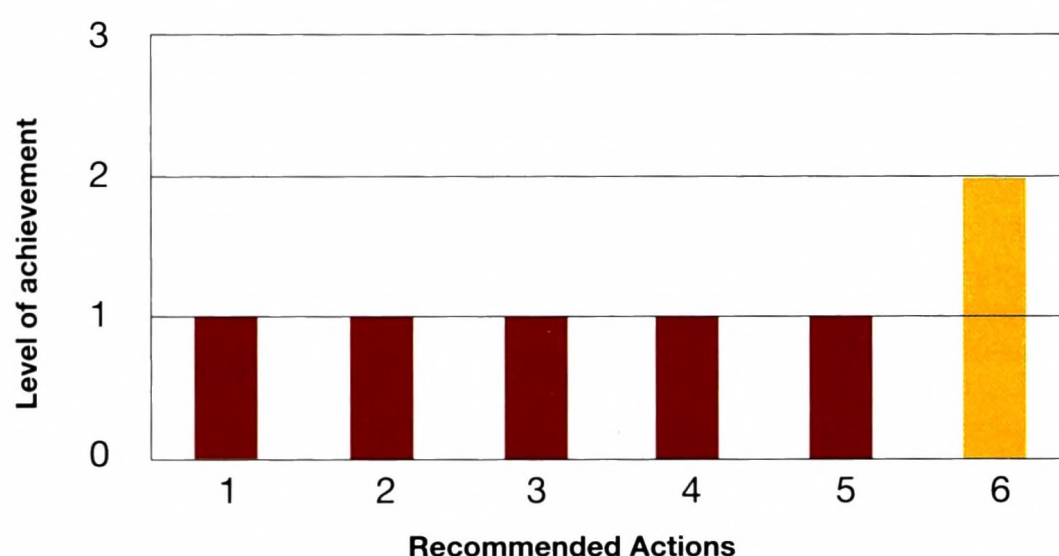


Figure 2.4 : Level of implementation of recommended Actions in BCAP thematic area of "Agricultural Systems"

2.6.1.5 Breakdown on level of achievement of BCAP recommended actions

Figure 2.5 shows that only 11 out of 74 BCAP recommended actions were achieved satisfactorily, while another 36 were achieved partially. The level of achievement with respect to the thematic area of Forest is comparatively high, i.e. 17 out of 24 recommendations (70.8%) were achieved either completely or partially. On the other hand, the success rate in Wetlands and Agricultural Systems were comparatively low, i.e. only 37.5 and 16.6 percent of recommended actions were achieved satisfactorily or partially.

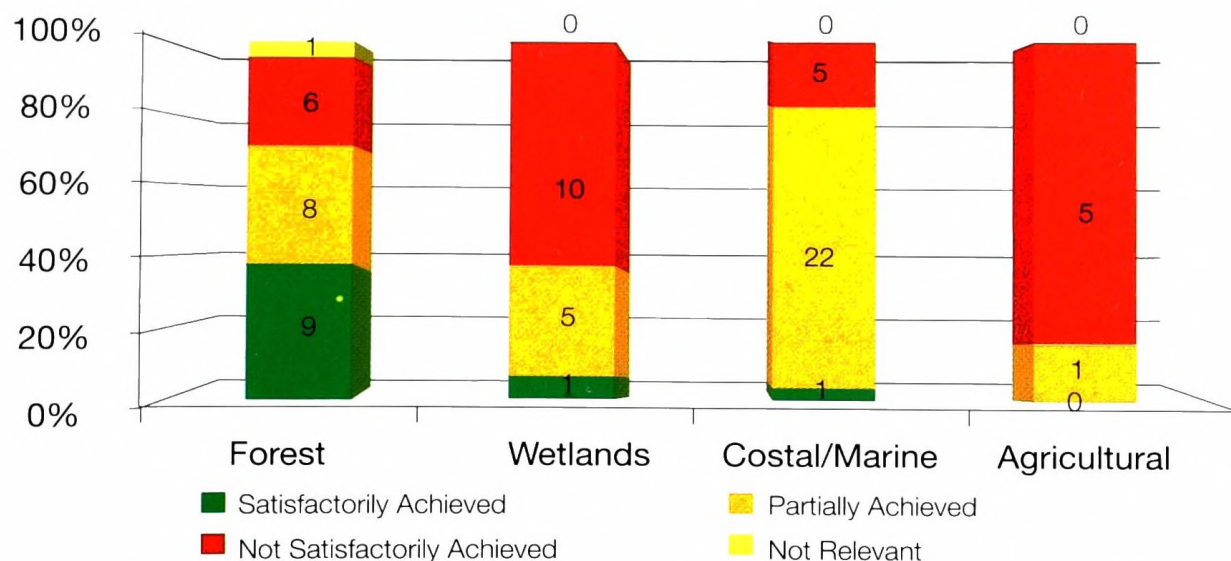


Figure 2.5 : Breakdown of the level of achievements of recommended actions in BCAP thematic areas (No. and Percentage)

2.6.2 Implementation of Priority Recommendations in the Addendum

The members in the four Expert’s Working Groups formed to work on BCAP thematic areas were also asked to rate each and every priority recommendation listed in the Addendum based on its ‘level of completion’ using the same three categories [i.e. (1) “Not satisfactorily achieved”; (2) “Partially Achieved”, and (3) “Satisfactorily achieved”].

Figure 2.6 depict the level of implementation of 31 priority recommendations on individual basis. The number of recommendations fall into three categories is illustrated in Figure 2.7. These highlight that only 6 out of 31 priority recommendations have been achieved satisfactorily (i.e. 19.4%), while 9 were unsatisfactory (29.0%) in implementation.

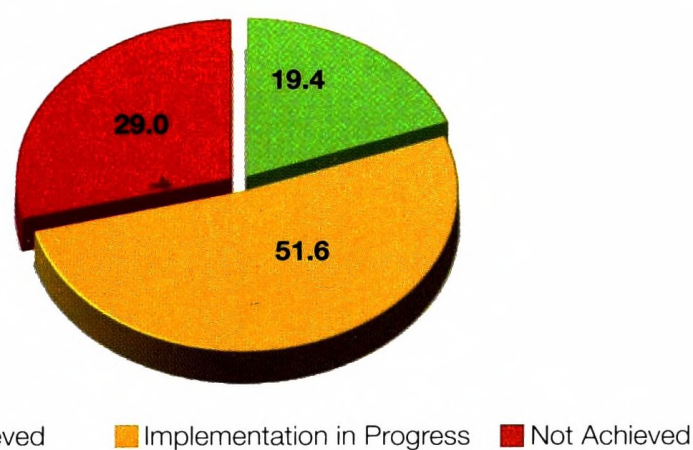


Figure 2.6 : Breakdown of the level of achievements of priority recommendation in the Addendum (Percentage)

Figure 2.6 shows that a satisfactory progress was obtained with respect to the priority recommendations 6, 10, 11, 12, 18 and 20 included in the Addendum. On the other hand, action taken to achieve a progress with respect to priority recommendations 9, 15, 16, 17, 22, 25, 26, 27 and 31 were rather unsatisfactory.

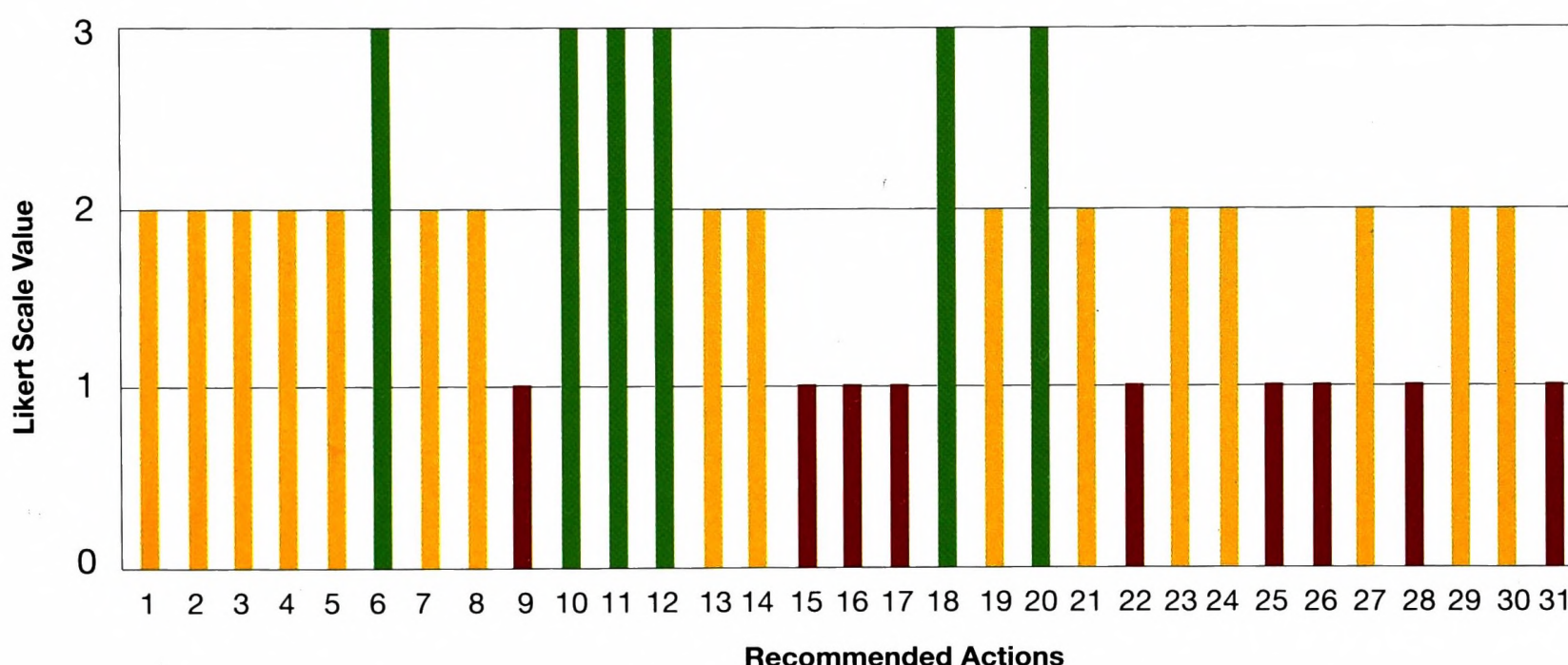


Figure 2.7 : Level of implementation of priority recommendations in the Addendum



PART 3

