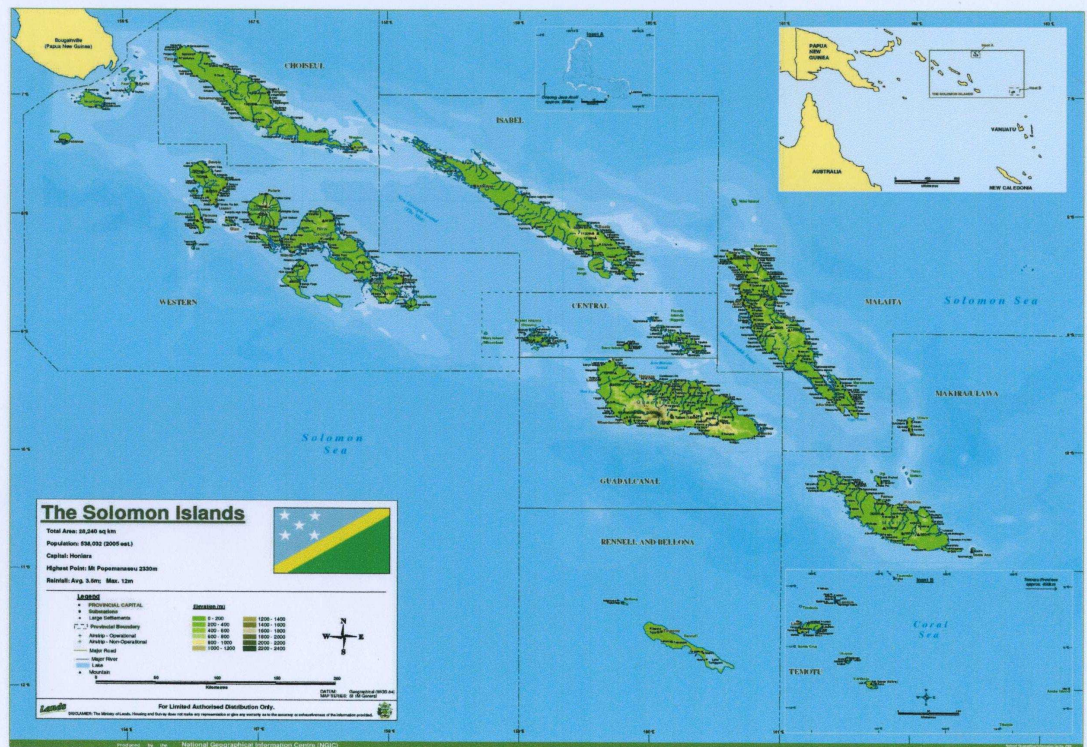


Action Plan for Implementing the Convention on Biological Diversity's Programme of Work on Protected Areas

Solomon Islands

SOLOMON ISLANDS MAP



Protected area information:

PoWPA Focal Point: Joseph Hurutarau, Chief Conservation Officer, Environment and Conservation Division, Ministry of Environment, Climate Change, Disaster Management and Meteorology, PO Box 21 Honiara, Solomon Islands.

Lead implementing agency: Environment and Conservation Division, Ministry of Environment, Climate Change, and Disaster Management & Meteorology (MECDM).

Multi-stakeholder committee: (Relevant Government Ministries, NGOs, Business sectors, Provincial Governments, site-level community Representatives)

Description of protected area system

National Targets and Vision for Protected Areas

International Targets

1. Achieving Target 11 of the Aichi Biodiversity Targets.

National Targets

1. Identify key threats in existing protected areas and address these threats by 2015 in terms of their coverage and ecological representation and that by 2018 at least 50% of the existing protected areas are covered.
2. By 2015 50% of all existing protected areas are enhanced and effectively managed.
3. By 2018 all existing protected areas have in place practicable and effective management plans that incorporated traditional and effective conservation and management measures undertaken by the communities at the Site-level.
4. By 2015 the trust fund provided for under the Protected Areas Act 2010 is fully established and up and running.
5. By 2018, at least 40% of the existing protected areas are integrated into wider sectors (land and sea sectors).

Coverage

- ▲ 40% terrestrial / inland waters
- ▲ and 60% marine areas

Description and background

Protected areas presently cover less than 0.5% of land and seascapes of the Solomon Islands. These Islands were known to have a wide range of animal and plant species that are endemic and unique. For instance, of the 163 land bird species found in Solomon Islands, 72 are found nowhere else in the world and another 62 are represented by unique races or subspecies. Initiatives have already been taken to protect highlands (e.g. Bauro highlands) and coastal and marine areas (eg. Arnavon Islands).

Effective management of Solomon Islands' biodiversity resources participation across a range of sectors and disciplines in the country. Essentially the government has adopted legislations such as the Environment Act 1998, Wildlife Protection and Management Act 1998 and Fisheries Act 1998, Code of Logging Practice pertaining to protect areas. However, there are still gaps and improvement must be made.

Governance types

1. Traditional and Cultural Management practices
2. Institutional and legislative framework

Key threats

1. Unsustainable logging & mining practices

These increased development practices have been causing major threat to the Biodiversity of Solomon Islands by degrading the environment as a whole by causing an impact to different types of ecosystems. For example, the aquatic, terrestrial and the coastal and marine ecosystems. These anthropogenic activities have been concentrated inland and it always causing impacts from Ridge to reef bases.

For Instance, commercial timber harvesting in Solomon Islands was unsustainable, with a historical data of approximately 500,000m³ in 2000 to a peak of 1,000,000m³ in 2005, and experts have predicted an exhaustion of natural timber forests by 2015 (URS 2006). Not only does this situation have serious economic implications but it has also resulted in widespread adverse environmental impacts (e.g. soil erosion, and sedimentation, water quality impacts, loss of habitat and biodiversity, and loss of future opportunities for alternative sustainable livelihoods). Forest cover was estimated to have been decreased from 80% in 1990s to 60% today indicating a significant loss in biodiversity. Thus, as a consequence it reduces income generating opportunity from land base resources. The initial POWPA analysis and the government have identified the main sources of destruction and threat to National Protected Areas (NPAs) as logging operations. This is noticeable and is leading to habitat degradation, threatening the survival of some endangered species.

Fresh water ecosystem is the most threatened areas as streams and rivers connect the land and marine environment and they usually situated on the lowest level of land with regards to ridge to reef kind of understanding.

Much work has been done by the Ministry of Environment for managing these development practice to minimize the resulting impacts ,somehow the Ministry has encounter some obstacles through lack of human resources, financial difficulties, technical difficulties ,ETC..... .

2. Inappropriate land use practices

Due to increased growing population of Solomon Islands, inappropriate land use practices has become a threat that accelerate land degradation (e.g. soil erosion, siltation, and loss of soil fertility) as well as landuse is a key factor that people practice to meet their daily needs for water, food, money and resettlements to other sites. .

In Solomon Islands about 85% of the population live in rural villages and are heavily dependent on subsistent gardening. Peoples' dependency on forest resources for their livelihoods is also noticeable and this has posed a threat to biodiversity through bush clearing, etc. Unless appropriate measures are taken to address it, escalation of these bad practices is inevitable.

As the population grows uncontrollably, people experienced issues through increasing land use practices However, lacking successful conservation measures on how they would use their land wise for sustainable developments because of lack of appropriate awareness programmes on conservation management in using their resources wisely and sustainably.

There is also increasing agriculture activities in bigger Islands as people see as an alternative for earning money for their livelihoods and there is an increasing demand for income as they depend much on money for their needs.

3. Unsustainable fishing practices.

Most population (up to 90%) of the Solomon Islands situated on coastal areas than inland depending much on finfish and shellfish for protein. Much of this fish protein is harvested from near shore coral reefs, mangrove swamps and sea grass beds. This means that all coastal dwellers depend much on marine resources for food and other basic needs.

However, the fishery resources are being subjected to increasing pressures, due to human population growth, and increasing demands for cash. Berdach and Llegu (2005) identified unsustainable fishing practices that are environmentally-damaging and depleting valuable and fragile coastal and marine resources to include: (a) harvesting of large quantities of fish that gather in spawning aggregations, (b) use of poisons (e.g., Derris root) which can result in killing many non-target species along with targeted ones, and may also damage corals, (c) dynamite fishing, and dynamiting to harvest live and dead coral rocks, (d) coastal sites adjacent to logged over areas are being affected by erosion and siltation, and (e) alteration or loss of mangrove swamps (through cutting of mangroves for firewood and construction materials, clearing for other uses, or filling and dumping).

Over populated areas the use of marine resources has led to unsustainable fishing practices that cause a

4. Mining operations

Prospecting has increased dramatically over the past 5 years in the country. At present, four licenses have been issued for commercial mining, and applications have been submitted for new exploration licenses at fourteen new potential sites. Minerals were found in Guadalcanal, Western, Isabel and Choiseul province. In terms of policies and legal framework, the Department of Mines & Energy has drafted a mineral policy, but this has not yet been put into effect. Important concern in the mining development is the resulted impact to the environment.

Threat to the marine resources harvesting rate to the growth rate of the resources.

5. Climate change

Climate change is becoming a global issue and the Pacific Island counties are the first ones to experiences its effects as they are mainly living on the low lying coral Islands.

In the Solomon Islands, land formation originally is mainly man- made islands, atoll islands, low coral islands and volcanic Islands. Artificial coral Islands, atolls and low lying Islands has now facing the effects of climate change and this effects became a threat to their environment.

However, main volcanic originated Island with river systems has also experience the effects of climate change with regards to water table movement that moves down that caused rivers to go dry and decreasing rate of water replenish and in linked with the unsustainable anthropogenic activities that are still current practices causing the increasing rate of surface water runoffs.

For example, the drought that affected the eastern part of the country in 2004 which caused severe food shortages to the people of Temotu Province, the Category 5 cyclone in 2004 which hit Tikopia Island and more recently the earthquake and tsunami which devastated Western and Choiseul Provinces in 2007. These extreme weather events increase vulnerability and posing a threat to food security as well as the health and survival of Solomon Islands' biodiversity resources. Impacts on mangrove areas, wetlands, coral reefs and forests would undoubtedly have dramatic impacts on a wide range of marine life, forest plant and animal species. Major shifts in temperature and rainfall may result in the disappearance of fragile ecosystems in these areas and their associated biodiversity.

6. Invasive species

The invasive species is also a contributing to threats in the Solomon Islands as there are known number of alien plants and animals existed in the Country that may of potential significant impact to the Biodiversity Solomon Islands.

For examples, a tiny red stinging ant is also existed in the country for several numbers of years and it causes threat to the biodiversity, economy and societies of Solomon Islands. This red ants from experience was causing the eyes of dogs used for hunting to go blind and triggered the increased population to wild pigs were

destroyed food gardens of the local people. This problem is occurred in areas that has big land mass and land formation of volcanic original.

Also is the existence of an African Giant snail that is increasing uncontrollably at the capital of the Solomon Islands and has increased rapidly and easily distributed to other areas over the last years since it was found out.

7. Natural Disasters.

The Solomon Islands is located close to the equator and is within the Pacific “**rim of fire**” and so is vulnerable to any sort of natural disaster in that case cyclone and earth quake that is frequently occurred.

Solomon Islands have experienced some extreme weather events as a result of climatic change (global warming). For example, the drought that affected the eastern part of the country in 2004 which caused severe food shortages to the people of Temotu Province, the Category 5 cyclone in 2004 which hit Tikopia Island and more recently the earthquake and tsunami which devastated Western and Choiseul Provinces in 2007. These extreme weather events increase vulnerability and posing a threat to food security as well as the health and survival of Solomon Islands’ biodiversity resources. Impacts on mangrove areas, wetlands, coral reefs and forests would undoubtedly have dramatic impacts on a wide range of marine life, forest plant and animal species. Major shifts in temperature and rainfall may result in the disappearance of fragile ecosystems in these areas and their associated biodiversity.

Barriers for effective implementation

1. Knowledge incomplete about what to protected, where to protect, and how to protect.

As Land tenure System in the Solomon Islands is customary oriented, it is important to encourage local participation to enhance sustainable management of protected areas. It is obvious that many of the protected areas are abandoned due to lack of commitment and confidence between landowners and the government resulted in wide exploitation of resources. Currently 70 percent of the protected areas in the Solomon Islands are without a proper record of fauna and flora found within their boundaries, a significant step back to effective management. Thus, to address this gap, the government needs to carry out an ecological survey to identify all flora and fauna that are found in all protected areas so that the integrity and biodiversity of these species are conserved.

The Initial PoWPA Analysis drew a list of potential new sites. This needs to be taken as a basis for the ecological gap analysis (see Annex III.1.C). At the same time it is paramount for each new site identified, as well as for each existing site, to have discussions with local people regarding introduction of management planning on those sites with engagement of local communities in such as way as it would be both beneficial for them in terms of livelihoods, as well as for biodiversity.

2. Poor governance and lack of clarity about site management objectives

It was the goal of the Solomon Islands government to establish 'good governance' structures for the established NPA system. Participatory management has been a cornerstone of government policy regarding natural resource management and has been reaffirmed numerous times in laws and policies. Unfortunately, as already evidenced in this report, the complex structure of decision-making and responsibility within the SIG has made it very difficult to establish better NPA governance and implement participatory schemes. The difficulty is further compounded, in the case of participatory management, by a lack of funding to train and involve communities in NPA management. The result of poor governance compounds the multitude of issues affecting the establishment of NPAs in the Solomon Islands and urgent action is required.

The PoWPA analysis revealed two major challenges inhibiting the improvement of governance structures in Solomon Islands NPAs: 1) unclear management objectives for individual NPAs; and, 2) ill-defined responsibility and decision-making power at the national, provincial, and local levels. These limitations were recognized and the Solomon Islands is currently undergoing ministerial restructuring with aim to streamline roles and responsibilities across all government levels. In addition, as part of a joint national review, the Solomon Islands Government is creating a work plan to clarify and adjust primary management objectives for each NPA in an attempt to create a more robust NPA system. These improvements will place the Solomon Islands Government in a better position to address governance issues and improve NPA management effectiveness.

1. Political instability

After the unrest in 2000, there was a gradual increase in economic development but limited capacity was given to address the significant impact it has on the environment. One of the many reason is the lack of political stability in the country. Solomon Islands is subjected to frequent votes of no confidence, and government leadership changes frequently as a result. On 13th December 2007, Prime Minister Manasseh Sogavare's coalition government lost a parliamentary vote of no confidence, and on December 20, Parliament elected Derek Sikua as Prime Minister. The unstable governance system has some influence on intending plans and strategies needed to address environmental issues in the country.

One of the weak points of the government is the numerous changes within the Ministerial system. Obviously, Solomon Islands government has been swapping ministers around Ministries to fulfill some political interests, sometimes it is of personal interest. As a result, the progress of work in a specific timeframe already set and takes longer to meet. The problem might have also occurred across all level of governance, from provincial to the national government. This remains one of challenges for any Government of the day.

The Regional Assistance Mission to the Solomon Islands (RAMSI) is a multinational police-centered force organized by Australia, arrived in the country in the mid of 2003 at the government's invitation to assist in restoring law and order and rebuilding the country's institutions. RAMSI officials were deployed in some important sectors of the government to support and ensure government procedures are met. However, the opposition leaders continue to criticize the strategies Australia adopted for some political reasons. The

ongoing political instability has created a lot of challenges for the government to address environmental issues.

2. Limited financial capacity

Solomon Islands have recently completed the study to establish a National Protected Areas System and have identified the gaps and the capacity needs of the system. However, funding to meet the cost of strengthening the system must be secured elsewhere. Although, donor dependency is often unsustainable, it is imperative that Solomon Islands secure financial assistance during its current infant stage, purposely to strengthen its financial and managerial capacity in order to minimize the potential rapid declining of the biodiversity in the country.

It was expressed during various stakeholders and focused group consultation that donor funding is important and once the donor has left a project, a number of activities in the NPA either slowed down or ceased before the full impact of the project is realized and appreciated by the people. The lack of funding is in part to be blamed for this to occur. However, it is hoped that with financial assistance come to hand, the Solomon Islands will develop and implement a financing strategy for the national system as well as for individual PAs. Current funding sources for NPAs in Solomon Islands are largely through donor financing under management of respective NGOs.

3. Lack of capacity in human resources

The need to strengthen the level of appropriate capacity building has been identified as a key element necessary for promoting management effectiveness in NPAs. Various stakeholder consultative meetings identified issues such as insufficient training and knowledge of existing staff, an overall lack of staff, limited scientific and technical information pertaining to individual NPAs, as well as a lack of knowledge among communities in and nearby NPAs as key challenges.

Central to the issue of capacity development is the lack of financial resources to carry out training with staff and communities as well as the lack of funding to hire the minimum qualified staff required for each NPA in the Solomon Islands. McDonald and Lam (2006) stated that ECD appears keen to maintain control of the NBSAP process but lack of capacity within government division exacerbate by the inability to access GEF funds until financial accounts are provided acts as a barrier. The SIG is committed to providing adequate staffing and equipment to each NPA as suggested, yet the funding source for these expenditures remains undetermined.

Work is progressing on some capacity development activities. The WWF is currently conducting capacity building programs in marine resource monitoring and management among resource owners and users through awareness programs (Thomas, 2006). Additionally, The Nature Conservancy is building capacity programs focusing on traditional leaders and communities. In 2004 a rapid Marine assessment was carried out by the group and a report was produced. The SIG is committed to continue building capacity with ongoing and future partnerships with NGOs and Institutions.

4. Land tenure system

In Solomon Islands, about 85% of the total land is under customary ownership in contrast to only 15% alienated which is either privately held or crown land. The prevailing traditional system of land ownership provides a welfare safety-net for the vast majority of Solomon Islanders. In addition, the customary land tenure supports the country's robust village-based subsistence agriculture. In parallel to this, however, customary ownership is a major constraint to economic development and integrated land use management and planning. Often multiple disputes emerged between landowners and developers or between different landowning groups have invariably problematic and costly in efforts to mobilize and acquire land for large-scale economic projects. Even, acquisition or setting aside land for other public purposes, such as management of watersheds, protection of sites of special interest, or conserving environmentally-sensitive areas, is equally problematic. While the national government has the power of compulsory land acquisition, using this power is regarded as politically unpopular. Thus this authority has only been used occasionally, to acquire property for such purposes as roads, schools, and health centres.

Despite the fact that the traditional land ownership system is so deeply ingrained, modern practices and rapid population growth are effecting radical changes on the land. One of the confronting challenges is the threat to land use sustainability as a result of unsustainable practices such as shifting cultivation, monocropping and industrial logging. Land degradation problems spread nationwide that there is a growing shortage of arable flatland for subsistence gardening. Increasingly, small-scale farmers are being forced out of productive agricultural lowlands, to cultivate steep-slope areas. Without proper controls, steep slope cultivation can lead to catastrophic consequences such as soil erosion and even landslides.

The Solomon Islands is a signatory to the UN Convention to Combat Desertification (UNCCD) and is committed to ensuring that land management processes in the country are strengthened. Action taken towards developing plans for sustainable land management are only in the early stages, although the process has been impeded by lack of access to good information that accurately represents the current situation. Careful consideration is needed to confront the challenges posed by the complexities of customary land tenure, and in that context, to determine a viable mechanism for putting in place a more integrated and effective system of land management. Customary landowners need to engage in dialogue with other stakeholders from government, the private sector, and civil society, to develop workable partnerships. There is a need to determine the most appropriate uses of various land areas, and then, to map out a course to sustainably utilize those lands for their best suited purpose, so that the benefits are maximized for the greatest number of people.

Gap Analysis Results

(From Thomas 2006 and Mc Donald and Lam 2006).

Potential new protected areas in Solomon Islands which will be considered under the ecological gap analysis

Province	Potential protected areas	Size	Details of biodiversity(Flora and Fauna)	
			Flora	Fauna
Western Province	Marovo lagoon	70000ha	5 principle forest types. Lowland forest, small island and barrier island forest, mangrove forest, montane forest and heaths.	52 species of land and fresh water birds were recorded and 9 species are endemic to the lagoon. 10 species of Sea and shorebirds.
	Kolobangara	All forest above 460m. The island is 70000ha	12 principle species of forest trees. Moss covered montane forest caps(Less, 1990:109)	Richest avifauna with 80 species recoded. 2 species are confined to montane forest and are unique to the island. (Less, 1990:110)
	Rendova	The island is 40000ha	Common Montane forest trees species are Casuarinas papuana, lower altitude forest predominance of Camnosperma brevipetiolatum, Others include mosses, palms, pomelia pinnata, pterocarpus indicus. (Less, 1990:113)	Support unique white eye species Zosterops rendova. Crocodiles are evident in lakes and lagoon. Two species of frogs have been recorded from Rendova (Less, 1990:113)
	Faoro island, Shortland islands	-	Dominated by akwa Pomelia pinnata, Vasa Vitex cofassus and Canarium salomonense. Smaller trees include Myristica sp, laelae Celtis phillippnensis,	Best nesting sites for turtles. Presence of Skink Triblonotus ponceleti known from only tree specimen, two from Shorthlands and one from Bouganville (Less, 1990:114).

Province	Potential protected areas	Size	Details of biodiversity(Flora and Fauna)	
			Flora	Fauna
			Cryptocarya sp Litsea spp (Less, 1990:114).	
Choiseul Province	Mt Maetambe	22500ha	Dominate tree species akwa and Vasa. These two trees and Laelae are characteristics of valley bottoms, on ridge crest Eugenia spp, buni and kaumau Calophyllum spp are common. (Less, 1990:103)	Seven spp of frogs, one endemic spp. Two rare butterfly spp. Presence of three giant rats, two of which are new record. 26 bird species. 6 are endemic spp. (Less, 1990:103)
	South Choiseul	30000ha	Different forest composition from Ysabel and Guadacanal growing on ultra basic rock. Forest is species poor with an open canopy and straggling emergent trees over dense undergrowth of pandanus, gingers, ferns and climbers. Mangrove forest found Ologholata in the north of the proposed reserve(Less, 1990:106)	Crocodiles are evident. Has significant nesting beach for turtles. Forest growing on ultra basic rock noticeably has low bird numbers. 35 bird spp, 11 spp are endemic. (Less, 1990:106)
	Mt Televodo		The features are closely similar to the description given for the limestone forest cover occurring in Mt Maetabe (Less, 1990:115)	The features are closely similar to the description given for the limestone forest cover occurring in Mt Maetabe (Less, 1990:115)
Santa Ysabel	North Western Ysabel	120000ha	Peninsula dominated with kekete (Camptosperma	Crocodiles were evident. It contains 65% of nesting sites of green and

Province	Potential protected areas	Size	Details of biodiversity(Flora and Fauna)	
			Flora	Fauna
			<p>brevipetiolata) indicating exposed to prevailing high winds and cyclones. Akwa, vasa, andoa, lu usi are also found on ridges that run through the peninsula. Where slopes are fa alo, bamboo, gingers and Macaranga spp. Akwa is common in lowland forest. Smaller trees include Agaia spp, ai aasila Neoscortchhinia forbesii, laelae, Myristica sp, palms and pandanus. Patches of beach forest containing 5 species of trees (Less, 1990:122)</p>	<p>hawksbill turtles. Sea eagles, Brahminy kite, osprey and terns are also evident. Migratory birds use the islands and tidal flats as resting and feeding area during November to January eg whimbrel Numenius phaeopus (Less, 1990:122)</p>
	Mt Kubonitu		<p>Supports montane forest with ailumu Dacrydium xanthadrum, akiri Ochrosia spp, koadila pemphis acidula and Eugenia spp. (Less, 1990:124)</p>	<p>Meeks lory Charmomosyna meeki, white rumped swiftlet Collocalisa spodiopygia, pigmy parot Micorospitta finschii, Melanisian gray bird Coracina caledonica and the golden whistler Pachycephala pectoralis. (Less, 1990:124)</p>
	Casuarina swape	2500ha	<p>Dominated with hardy malasalu Casuarina papuana and Dacryduim xanthadrum. On swapy grounds Calophyllum vexans, bou Fagrea gracilipes and gwarogwaro</p>	

Province	Potential protected areas	Size	Details of biodiversity(Flora and Fauna)	
			Flora	Fauna
			Calophyllum vitiense. Ferns and Savanna(Less, 1990:124)	
Guadalcanal	Lauvi lake	200ha	Floating meadows include three species eg Cyperaceae. Extensive areas of pandanus. Beach side dominated with fu'u Barringtonia asiatica. Other species are also common in the community eg Hibiscus tiliaceus. Thus, there are also many other species growing around the areas (Less, 1990:130)	Outstanding habitat for crocodiles. Wetland birds and around the lake was the Australian dabchick which was a new record for Solomon islands. About 40 bird spp are found, 9 are endemic spp in the Solomon islands(Less, 1990:131).
	Itina Popomanaseu	30000ha	6 spp of pioneer trees were found on gravel beds of braided river sites eg salu Casuarina equisetifolia. On slightly higher ground 5 species of trees are common eg Akwa. Evident at the ultra basics are mudi Dillenia crennata. Common in montane forest are trees of non flowering plant family, Podocarpaceae. 3 spp are found. Myrtle family, 5 spp are found. The four epiphytic rhododendrons that are unique to Solomon	Habitat for many animals including four bird species endemic to Guadalcanal. Guadalcanal endemic giant rats. 1990 Australian Museum mammal survey of Mt Makarakomburu found a new spp of bat along with nine other bat spp, four frog and eight reptile spp. Thirteen bird spp were recorded including rare Guadalcanal honeyeater Guadalcanaria inexpectata. Mt Popomanaseu is only place in the Solomon where terrestrial mollusc have generated endemic montane spp. Restricted to these mountain include

Province	Potential protected areas	Size	Details of biodiversity(Flora and Fauna)	
			Flora	Fauna
			islands are all found on peaks of the proposed protected area. Also endemic is mountain shrub, Vaccinium (Less, 1990:136).	arboreal Placostyllus selleersi and undescribed spp Helixarion and Trochomorpha. Birds of the Itina River proposal area recorded 44 bird spp, 13 are known to be endemic spp in the Solomon islands (Less, 1990:136).
Makira Province	Central Makira – Bauro highlands	35000ha	Akwa dominate lowland forest and lower hill slopes. 8 spp of trees are also common in the zone eg Rosswood. Above the zone where akwa is predominant 6 spp of trees are common eg abalolo. Common small trees are Myritica spp and aisubu Pimeliodendron amboinicum. Above 700m 5 spp of trees are common eg aitootoo (surukakahu) Weinmannia blumei, Cyathea tree ferns and palms are also common. At highest altitude montane forest is found with 8 different spp of trees. Forest floor is covered with moss (Less, 1990:158).	Several of Makira's endemic spp are restricted to the mossy cloud forest of the highest ridges eg Keea (Makira mountain tail), waisure (Makira ground trash), ghoghoharighi (shade warbler) and the dusky fantail are found in these forest and no where else in the world. 49 Birds recorded, 5 endemic to Solomon and 5 endemic to Makira(Less, 1990:158).
	Western wetlands	2500ha	A tall mixed swamp forest featuring dafa Terminalia brassii and	

Province	Potential protected areas	Size	Details of biodiversity(Flora and Fauna)	
			Flora	Fauna
			rufa Eugenia tierneyana on wet land edges. In the wetted parts of the swamps pandanus, bamboo and ferns form a complete cover one to three meters high(Less, 1990:161).	
Malaita Povince	Central Malaita highlands	12500ha	Common in the lowland forests are 4 spp of trees eg akwa rosswood and vasa. On lower riverine terraces 3 species are also common eg lamilami, liki and akwa(Less, 1990:167).	57 bird spp are recorded, 9 endemic to Solomon islands, 13 endemic to Malaita (Less, 1990:168)..
	Maramasike Are'are	15000ha	Large figs and 11 tree species eg akwa are common at the end of the maramasike passage. The hill forest behind both Maramasike and Are'are commonly features 7 of the species mention above together with 5 other spp eg Cryptocarya spp (Less, 1990:173).	Excellent habitat for crocodiles. About 60 bird spp are recorded, 7 endemic to Solomon islands and 10 endemic to Malaita (Less, 1990:174).
Temotu Province	Kauri reserve	200ha	Kauri Agathis macrophylla in the Solomon islands is found only in Temotu Province(Less, 1990:178).	

Status, priority and timeline for key actions of the Programme of Work on Protected Areas

Status of key actions of the Programme of Work on Protected Areas

Status of key actions of the Programme of Work on Protected Areas	Status
• Progress on assessing gaps in the protected area network (1.1)	1
• Progress in assessing protected areas integration (1.2)	3
• Progress in establishing transboundary protected areas and regional networks (1.3)	2
• Progress in developing site-level management plans (1.4)	1
• Progress in assessing threats and opportunities for restoration (1.5)	2
• Progress in assessing equitable sharing of benefits (2.1)	0
• Progress in assessing protected areas governance (2.1)	0
• Progress in assessing the participation of indigenous and local communities in key protected area decisions (2.2)	4
• Progress in assessing the policy environment for establishing and managing protected areas (3.1)	4
• Progress in assessing the values of protected areas (3.1)	0
• Progress in assessing protected area capacity needs (3.2)	1
• Progress in assessing the appropriate technology needs (3.3)	0
• Progress in assessing protected area sustainable finance needs (3.4)	0
• Progress in conducting public awareness campaigns (3.5)	2
• Progress in developing best practices and minimum standards (4.1)	1
• Progress in assessing management effectiveness (4.2)	2
• Progress in establishing an effective PA monitoring system (4.3)	1
• Progress in developing a research program for protected areas (4.4)	2
• Progress in assessing opportunities for marine protection	1
• Progress in incorporating climate change aspects into protected areas	2

Status: 0 = no work, 1 = just started, 2 = partially complete, 3 = nearly complete, 4 = complete

(Insert notes as appropriate)

Priority actions for fully implementing the Programme of Work on Protected Areas:

1. Implementation of policy environment for establishing and managing protected areas;
2. Assessing protected area integration (sectoral and spatial);
3. Developing a research programs for PAs.
4. Development and production of PAs management plan to all levels (National, Provincial and Site level)

Timeline for completion of key actions

All activities will be completed by the end of Year 2018

Plans for completing priority actions of the Programme of Work on Protected Areas

Action 1: (Implementation of policy environment for establishing and managing protected areas)

Key steps	Timeline	Responsible parties	Indicative budget
Formation of a steering committee	2012-2013	MECDM & other line ministries, NGOs	SBD\$50,000
Formation of PA Advisory Committee (PAAC)	2012 – 2013	MECDM & other relevant ministries & NGOs	SBD\$50,000
Conducting public awareness – PA Act 2010 & and regulation and the importance of PAs.	2012 – 2015	MECDM & other relevant ministries & NGOs, communities	SBD\$1,000,000
Write up and getting TOR approved	2012 -2015	MECDM & other relevant Ministries & NGOs	SBD\$100,000
Setting up trust fund	2012 -2014	MECDM & other relevant Ministries.	SBD\$50,000
Seeking technical assistance	2012 – 2014	MECDM & other relevant Ministries & NGOs	SBD\$300,000

Action 2: (Assessing protected area integration (sectoral & spatial))

Key steps	Timeline	Responsible parties	Indicative budget
Review existing 'Ridge to Reef' conservation approach document.	2012 – 2018	PAAC, Line gov't ministries, PGs, communities, NGOs, technical	SBD\$75,000.

		experts	
Undertaking on-going Community consultations for trans-boundary PAs	2012 – 2018	MECDM & Line gov't ministries	SBD\$500,000
Conducting climate Ready Gap Assessments	2012 – 2018	Line ministries, NGOs, communities	SBD\$100,000
Integrate and mainstream PAs into sectoral policies & integrate PAs into NAPA	2012 – 2018	PAAC, line gov't ministries, NGOs, PGs, consultants	SBD\$200,000

Action 3: (Developing a research programs for protected areas)

Key steps	Timeline	Responsible parties	Indicative budget
Engagement of Technical expertise and finalization of TOR.	2012-2018	PAAC,MECDM & line Ministry	SBD\$150,000.
Scientific and research baseline studies for potential significant PAs	2012 – 2018	Line ministries, NGOs, PGs, communities, consultants	SBD\$900,000
Conducting PA valuation studies and incorporate climate into PA valuation studies	2012 – 2018	Line ministries, NGOs, PGs, communities, consultants	SBD\$500,000
Data collection and information analysis	2012 – 2018	PAAC, line ministries, NGOs, PGs, communication, consultants	SBD\$200, 000.
Reporting process on annual basis	2012 – 2018	PAAC & MECDM	SBD\$300,000

Action 4: (Development and Enforcement of PAs Management plan in all levels)

Key steps	Timeline	Responsible parties	Indicative budget
Site – Level PAs Management Plans	2012-2018	MECDM, Relevant Ministries, NGOs, Provincial Government (PGs) and Communities	SBD\$600,000.
Provincial- level PAs Management Plans.	2012-2018	MECDM, Relevant Ministries, NGOs and PGs.	SBD\$270,000
National Level PAs Management Plans.	2012-2018	MECDM and Relevant Ministries	SBD\$300,000

Key assessment results

Ecological gap assessment

Solomon Islands located at the tropical zone that has a volcanic history, significant rainfall and seasonal cyclonic disturbances likely contribute to the historical and persistent terrestrial biodiversity.

It has a huge and different vegetation types including coastal strand vegetation, riverine forest, lowland forest, montane forest and non – forest communities including seasonal dry forest and grassland.

Solomon Islands has a high Terrestrial animal diversity and endemism. The endemism of terrestrial high animal diversity which included Bougainville to the North – West and towards Makira Islands that excluded Rennell and Bellona and Santa Cruz Islands. These Solomon groups of birds have 94 restricted range species which is greater number than any number than any other place on earth by area. There are 53 known mammal species in Solomon Islands, 19 of which are endemic and 20 of which are threatened. Three mammal species are said to be extinct. There is high density of mammals' species in Choiseul and Isabel Provinces. However, reptiles are less studied, especially in high altitude montane forest.

Freshwater systems provides a habitat for freshwater species essential estuarine nursery habitat for marine species and vital for human use such as a source for drinking water. Fresh water system has high species richness and variable endemism within and between Islands in the Solomon Islands. Studies have been carried out in specific 13 sites and 43 species have been identified. There are 175 known freshwater insects' species (from 69 sampled sides) with 45 species recognized as endemic. On the other hand, there is no known species record of the native freshwater plants of the Solomon Islands. With that, other guilds of freshwater organisms that have not been adequately assessed include molluscs, crustaceans, and annelids; however there is an evidence of their presence on Rennell Bellona.

Marine environment differs most from the terrestrial and freshwater ecosystems in having lower levels of national and sub – national endemism, despite exceptionally high levels of species richness. However, Mangrove species diversity is high in Solomon Islands .Pilai and Sirikolo list 26 species, representing 43% of global mangrove diversity. In addition, seven more species has been recorded in the Western Province, 10 species of sea grass have been recorded in Solomon Islands with a significant portion of all sea grass beds occurring in Malaita Province, and 233 species of marine algae, however, and endemism is still poorly understood.

Solomon Islands has high diversity of fauna in coastal marine waters. A rapid marine assessment conducted by The Nature Conservancy in 2004 provided the most complete assessment of coastal marine fauna to date, covering seven of ten (10) Provinces. The survey identified 485 coral species from 76 genera, across 66 sites, which placed Solomon Islands in the Coral Triangle (CTI), recognized as a global coral diversity hotspot, and centre of coral endemism. The corals are found on a diverse array of reef types including narrow fringing, lagoon, patch reef and atolls. A number of macro invertebrates' species inhabit coastal waters in Solomon Islands including nineteen species of sea cucumber, four main species of crayfish, six giant clam species, three species of pearl oyster, Trochus, and green snails and an estimated 1019 coral reef fish species and several species of marine reptiles. As well a diverse collection of marine mammals including 11 species of cetacean and a single species of dugong.

Sustainable finance assessment.

The Financial Need Assessment (FNA) is the starting point of the determining the financial planning process for the protected area system. It is the first step of identifying financial gaps, and the effort need to assure the long-term and stable funding commitment for protected area management objectives. FNA constitute of costing of protected area programmes. It involved the identification of cost to run an effective management of which the current cost and revenues of selected protected area sites are screened and potential revenues identifies to fill financial gaps.

The philosophical underpinning of the long-term sustainable finance lies in the need for finding innovative financing to support the conventional national and international support of the protected area system. In developing countries like the Solomon Islands, finding internal financial revenues could be the most difficult

challenge. As such, developing an Environmental Trust Fund (ETF) is proposed here as the starting point. Ideally most ETFs make grants to government-run protected area (PA) management agencies, NGOs, or both. ETF is responsible for managing and disbursing funds as well as for monitoring and evaluating the use of funds; it is the grantees or implementing organizations that actually carry out the conservation projects and activities. **ETF is an independent legal entity governed by a board of trustees or directors responsible for ensuring that the fund's financial resources are managed and used for their intended conservation purpose.** As stated the Solomon Island trust Fund could be instituted under the Charitable Trust Act. Taking into the NPOA's view the most feasible ETF mechanism is the **revolving funds**. Revolving funds anticipated revenues from multiple sources including fees earmarked for conservations, taxes, fines or payments for environmental services (PES).

Capacity needs assessment.

At the present, the Government does not have an effective site based protected area planning and management in the country. The government needs to strengthen the capacity of ECD so that planning and management of Protected Areas becomes effective. To that, the Government needs to improve institutional capacity of its human resources so that scientific knowledge can be in cooperated into planning and management of protected area. Futher, the government needs to strengthen its participatory approach involving communities and stakeholders as part of the planning process.

In addition, Prio to implementation the 16 goals of PoWPA, existing plans and strategies need to be strengthened. After the ethnic tension, the government has been struggling to emerge from economic downfall. Following that, institutional and financial capacities to address short and long term policy needs were jeopardized. The ministries responsible for the situations Solomon Islands has been unable to address a number of environmental issues regarding national protected area systems and conservations of biodiversity. However, to achieve these goals, the Government needs to strengthened institutional capacities to sieve scientific knowledge into the establishment and effectiveness of protected areas; strengthen monitoring and research of protected areas and strengthen involvement of indigenous communities in the decision making. Strengthened of capacity to undertake PoWPA activities should also go down to Provincial and community level.

However, a program under the UNDP has provided assistance in terms of money to cater for, " **Youth Environment Program** "to provide training for students studying at the School of Natural Resources doing certificate in Environment Studies for two 2 years for those youths that have just left secondary education.

Policy environment assessment.

Relevant legislation affecting the implementation of PoWPA include: Environment act 1998, the Wildlife protection and management Act 1998, the Fisheries Act 1998, Forest resources and Timber Utilization Act (Chap 40).

However, the Government needs to have commitment to address specific concerns of PoWPA. For example, the wildlife Act 1998 was developed to support the obligation of CITES, yet Solomon Islands delayed in signing the treaty until in 2007 and become 172nd contracting state of the convention. Such a delay is a step back to the effectively managed of protected areas.

Protected area valuation assessment.

There is no policy, standard or guidelines for the Protected Area valuation Practices existed in the Solomon Islands. It is one of the priority areas that the Country has to consider and look on for the valuation of various ecosystems existed in the country.

Solomon Islands -is one the highly biological diverse in the Pacific region. However, it lacks the valuation of its resources and in this case is a problem in utilizing of the resources that may be a barrier in the Solomon Islands Economy.

Climate change resilience and adaptation assessment

A global increase in the atmosphere greenhouse gases has the result in global warming in recent times. Already extreme weather events in the country in recent years serve as a forwarning of the impacts on the environment that are likely to occur due to climate change issues. Few examples included the serious drought that affected the country in 2004, causing food shortages in Temotu province and category 5 cyclones that hit Tikopia Islands in the same year. Climate change also poses risks to natural ecosystems such as the coastal and marine environments, fisheries, agriculture, water resources, health, biodiversity, infrastructure and industry.

The main instrument for climate change adaptation is the Pacific Islands Framework for climate change (table 14). Under the United Nations Framework for climate change, eligibility PICs (those have least Developed State status) have developed National Adaptation Plans of Action (NAPA). Other Initiatives for the Pacific Islands region, including the Pacific Adaptation to Climate Change (PACC) project. The main objectives of PACC is to enhance the capacity of participating PICs to adapt to climate change, including variability, in selected key development sectors. During national consultations, several PICs confirmed that coastal management was a priority sector due to their vulnerability to climate change. Under the NAPAs and selected PACC projects in PICs, demonstrated measures re proactive initiatives to reduce the adverse consequences of climate change.