



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: MEDIUM SIZED

TYPE OF TRUST FUND: NPIF

PART I: PROJECT IDENTIFICATION

Project Title:	Strengthening the Implementation of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in the Cook Islands		
Country(ies):	Cook Islands	GEF Project ID:	5613
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5317
Other Executing Partner(s):	The Cook Islands National Environment Service, Biodiversity Unit and Island Futures Division	Submission Date:	December 6, 2013
GEF Focal Area (s):	Biodiversity	Project Duration (Months)	48
Name of parent program (if applicable): For SFM/REDD+ <input type="checkbox"/>	N/A	Agency Fee (\$):	92,150

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Trust Fund	Indicative Amount (\$)	Grant	Indicative Co- Financing (\$)
BD-4: Build Capacity on Access to Genetic Resources and Benefit Sharing	NPIF		970,000	1,779,535
Total Project Cost			970,000	1,779,535

B. INDICATIVE PROJECT FRAMEWORK

Project Objective: To develop and implement a national Access and Benefit Sharing (ABS) framework, build national capacities and support an ABS Agreement based on Traditional Knowledge and Public-Private Partnership						
Project Component	TA /IN V	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Financing (\$)	Indicative Cofinancing (\$)
1 Strengthened National Regulatory and Institutional Framework for ABS	TA	<p><i>Nagoya Protocol ratified by Parliament</i></p> <p><i>Strengthened national ABS and traditional knowledge regulatory framework in compliance with the Nagoya Protocol</i></p> <p><i>Increased national and local benefits derived from the agreement between CIMTECH and Koutu Nui¹ in genetic resources from plant extracts used for skin care products</i></p>	<ul style="list-style-type: none"> Increased knowledge in Cook Islands legislature of the potential benefits for the country of prompt ratification of the Nagoya Protocol Legal framework for ABS and traditional knowledge strengthened with a national ABS Act legislated with rules and regulations, consistent with PIC, MAT and Benefit sharing provisions. An institutional framework, administrative systems, rules and procedures in place to facilitate implementation of the national ABS framework Monetary and non-monetary benefits derived from the 	NPIF	97,000	149,954

¹ The Koutu Nui is a lawfully recognised indigenous representative body established in written law in 1972 under an amendment to the 1968 House of Ariki Act. Under Cook Islands customary law, each district has an Ariki (paramount chief) and each Ariki has a number of Koutu – representatives of sub-districts and the chiefs who are responsible for the cultural heritage of the Cook Islands. The Koutu Nui, a formal assemblage of the chiefs was charged with overseeing the cultural impacts of modern lawmaking. The Koutu Nui was chosen as a partner in CIMTECH as it represents the broadest group of traditional leaders in Cook Islands and includes many Taunga (traditional healers/doctors). Their role in the community includes accepted traditional practices, notably the ra’ui.

			<p>use/marketing of natural extracts agreed between CIMTECH and Koutu Nui regarding skin care products derived from genetic resources.</p> <ul style="list-style-type: none"> Existing ABS agreement² between CIMTECH and Koutu Nui regarding skin care product development³ is reviewed and strengthened, ensuring long-term conservation of natural resources. 			
2. Capacity building and awareness raising for the implementation of the National ABS Framework	TA / IN V	<p><i>Improved capacities of the Biodiversity Unit (BU), Island Future Division, the National Research Committee, Research Institutions, Private Sector and the Law Enforcement agencies for facilitating ABS agreements and handling issues under the Nagoya Protocol, indicated by: (i) Increased capacity in BU for monitoring of bio-prospecting projects; (ii) Increased capacity to add value to genetic/biological resources in the country; (iii) Improvement of the capacity of BU for negotiating ABS agreements as recorded in the UNDP ABS Capacity Scorecard [baseline is to be established during the PPG].</i></p> <p><i>Enhanced understanding of the ABS regime and the value of traditional knowledge associated with genetic and biological resources for improved policy making and on the ground conservation, sustainable use and fair and equitable sharing of benefits.</i></p>	<ul style="list-style-type: none"> Improved facility and capacity for bio-prospecting and traditional knowledge documentation, as well as training of enforcement agencies, other Government agencies, Research Institutions, Private Sector and NGOs on the Nagoya Protocol and national ABS legislation. Mechanisms and methodologies for ABS and traditional knowledge operationalised clarifying PIC rules and procedures for BU and genetic resource providers and users On-line processes in place for ABS agreements, in line with National Environment Service (NES) systems and procedures Awareness of the public on ABS and conservation and sustainable use of genetic/biological resources enhanced through a range of outreach activities. 	NPIF	155,200	239,925
3. Bio-discovery and benefit-sharing Agreement based on Traditional Knowledge on Bone and Cartilage Regeneration	TA	<p>Effective working of a national ABS regime demonstrated by:</p> <p>(i) One ABS Agreement reviewed in order to ensure its alignment with the revised legislation and the Nagoya Protocol.</p> <p>(ii) Improved extraction protocol developed for natural biologically active plant compound derived from “Au” (<i>Hibiscus tiliaceus</i>) to meet international standards of efficacy and safety, which has been shown to have bone and cartilage regeneration</p>	<ul style="list-style-type: none"> ABS agreement between CIMTECH and Koutu Nui revised in line with legal provisions in order to ensure the equitable sharing of benefits including agreement that at least 25% of community’s share is reinvested in traditional conservation practices including Ra’ui⁵ establishment and management. Protocols for extraction and standardisation of active compounds from “Au” developed. Toxicological trials ensure safety 	NPIF	630,500	974,698

² Any additional agreements that might be developed prior to the implementation of this project will also be reviewed.

³ Skin care products are developed from extracts from *Terminalia catappa*, *Vigna marina* and *Cocos nucifera*

⁵ A traditional conservation practice where access to a particular resource or area is forbidden for a given period that is still being practiced in the Cook Islands. The ra’ui are promoted and supported by the Koutu Nui and the Koutu Nui is responsible for the establishment of ra’ui. Ra’ui are locally managed by community members.

		<p>properties.</p> <p>(iii) Scaled up production facility to access international market for the biologically active compound</p> <p>(iv) Local communities' capacities strengthened on sustainable cultivation/ collection of <i>Hibiscus tiliaceus</i></p> <p>(v) Habitat⁴ of <i>H. tiliaceus</i> conserved through traditional conservation and sustainable extraction practices.</p>	<p>of the extract for therapeutic applications.</p> <ul style="list-style-type: none"> • Assay of the efficacy of the extract in bone defect and bone grafting studies to prove the therapeutic effect of the extract for use in therapeutic applications. • Infrastructure and equipment to scale up production with the adequate quality control measures in place. • Analytical and laboratory capacities are in place in order to ensure quality of the biologically active extract. • Guidelines and oversight of the collection and cultivation for <i>H. tiliaceus</i> • Defined certification process for refined extract for export • Market analysis and development (nationally and internationally) 			
Sub-Total					882,700	1,364,577
Project Management Cost				NPIF	87,300	134,958
Total Project Costs					970,000	1,499,535

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government	National Environment Service	In-kind	150,000
National Government	Crown Law	In-kind	150,000
National Government	Min. of Finance & Economic Management (MFEM)	In-kind	50,000
National Government	Ministry of Cultural Development	In kind	50,000
National Government	Office of the Prime Minister	In-kind	50,000
National Government	Natural Heritage Trust	In-kind	20,000
Local Gov't	Island Council	In-kind	50,000
NGO	Aronga Mana	In-kind	50,000
NGO	Te Ipukarea Society	In-kind	50,000
Private Company	Matheson Enterprises Pty Ltd (Cook Islands)	Grant	50,000
Private Company	Matheson Enterprises Pty Ltd (Cook Islands)	In-kind	50,000
Private Company	CIMTECH Pty Ltd (Australia)	Grant	579,535
Private Company	CIMTECH Pty Ltd (Australia)	In-kind	150,000
GEF Agency	UNDP	In-kind	50,000
			1,499,535

D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF AGENCY	TYPE OF TRUST FUND	FOCAL AREA	Country name/Global	Grant amount (a)	Agency Fee (b) ²	Total c=a+b
UNDP	NPIF	Biodiversity	Cook Islands	970,000	92,150	1,062,150
Total Grant Resources				970,000	92,150	1,062,150

⁴ Area to be determined during PPG. Habitat refers not only to the geographical occurrence of the species, but also to the areas that provide vital ecosystem services e.g. water provision from upstream catchments (as specie mostly grows on river banks).

E. PROJECT PREPARATION GRANT (PPG)⁶

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grants:

	Amount Requested (\$)	Agency Fee for PPG (\$) ⁷
• (up to) 50K for projects up to and including \$1 million	30,000	2,850

PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY

TRUST FUND	GEF AGENCY	FOCAL AREA	Country Name/Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b
NPIF	UNDP	Biodiversity	Cook Islands	30,000	2,850	32,850
Total PPG Amount				30,000	2,850	32,850

PART II: PROJECT JUSTIFICATION

A. PROJECT OVERVIEW:

A.1. Project Description.

The Pacific nation of the Cook Islands is made up of 15 islands located within a 2 million km² of EEZ in the Southern Pacific Ocean. The Cook Islands has extremely limited land resources, with 99.99% of the area within the EEZ consisting of marine areas. Of its approximate 240 km² of land, 26.2 % is *makatea* land (lime and rock), and only 4.3 % is used for agricultural purposes. Approximately 70 % of the land consists of steep sloping lands, wetlands, fernlands and escarpments. The Cook Islands' biodiversity has been considered globally important. The WWF has listed the forests of the Cook Islands (particularly on Rarotonga) as one of its key Global 2000 Ecoregions and considers them to be in a critical/ endangered state⁸. The Islands also fall under Conservation International's Polynesia-Micronesia hotspot⁹. Birdlife International has listed at least 11 endemic birds on the Islands, and recognises 2 endemic bird areas¹⁰. Of the 538 known angiosperm species recorded in the southern Cook Islands, approximately 4% are endemic. About 13 endemic species of endodontid snails and 11 species of charopid snails have been recorded, with several already extinct, and others facing severe threats, especially on Rarotonga. Eight species of range-restricted birds have been recorded, six of which are endemic. Of the three single island endemics, the Atiu swiftlet, Rarotonga starling, and Mangaian Kingfisher are globally Vulnerable. Key marine ecosystems of the Cook Islands include shallow lagoons with fringing reefs around high islands in the south, and atolls in the northern group with their large, deep lagoons encircled by coral reef. Other notable marine ecosystems include seamounts, sea bed, and the open ocean water columns. The diversity of marine species include at least 7 species of mammals, 570 species of bony fish species, 390 shellfish species, over 100 species of crustaceans, over 116 species of hard corals, and 62 species of seaweed and algae. The marine ecosystems are home to several globally endangered species such as the Giant Wrasse and the Green Turtle. They also host several globally Vulnerable species including the Bigeye Tuna, Black-blotched Stingray, Giant Grouper, Oceanic Whitetip Shark, Blue Marlin, the Blacksaddled Coral Grouper and several coral species. Several endemic marine species have also been recorded such as Cook Island Brittlestar (*Asterostegus maini*), Cook Islands Flashlight Fish (*Photoplepharon rosenblatti*), and Orange Spotted Soapfish (*Belonoperca pylei*).

The Cook Islanders are mostly of Maori descent. Preliminary results from the 2011 census suggest that the total population of the country is 17,791¹¹, of which 13,097 live on the island of Rarotonga. The level of subsistence living in the Cook Islands (particularly in the outer islands) is also high, with an estimated 64% of all households engaged in subsistence farming and fishing activities. Most land in the Cook Islands is held under customary tenure. Cook Islanders have for centuries been using natural plant-based remedies to 'doctor' common ailments. The modern day health care system in the Cook Islands is a combination of neo-traditional ways and Western medicine. The use of traditional medicine is still widely used, with traditional healers using a variety of herbal medicines and traditional practices to treat people.

⁶ On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

⁷ PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

⁸ <http://worldwildlife.org/ecoregions/oc0103>

⁹ http://www.conservation.org/where/priority_areas/hotspots/asia-pacific/Polynesia-Micronesia/Pages/default.aspx

¹⁰ <http://www.birdlife.org/datazone/country/cook-islands>

¹¹ <http://www.stats.gov.ck/Statistics/CensusSurveys/censurvnv.htm>

Problem: Several threats to Cook Island’s biodiversity significance arise from the fact that they are not considered economically important by local communities and development sectors, and economic actions that degrade or cause a loss a loss of biodiversity are more profitable in the short term. Overharvesting of wild resources is a serious concern, in particular of coastal and marine species that are important to the food security of local communities living on the Cook Islands. For instance, Parrotfish, Giant clams (*Paua*) and Coconut crabs (*Kaveu*) are declining in numbers. Excessive harvesting of sooty terns (*Sterna fuscata*) on Penrhyn (the only island other than Suvarrow in the Cook Islands that harbours these birds) has reduced the population there. There are also some concerns that some international fishing vessels may also be breaching their contract with the Government and harvesting products that they are not permitted to and/or fishing in areas that are prohibited under their license conditions, despite having monitors on board the ships. Further, there has been a progressive conversion of lowland forests (especially on Rarotonga) to agriculture, plantations, infrastructure and settlements. Consequently, little native vegetation remains in the more accessible lowland zones. The conversion of coastal areas for tourism related infrastructure also means that only remnants of the natural coastal forests and salt marshes remain. Consequently, the availability of habitats of the Beach Morning Glory (*Ipomoea pes-caprae*) and Portia Tree (*Thespesia populnea*) has significantly declined. In some instances, tourism infrastructure may also impact the nesting sites of sea turtles. There is some on-going conversion of natural habitats in Rarotonga for house construction, as people move inland and up the hills that house globally significant cloud forest ecosystems. Trade and planned/accidental import of organisms have also caused a spread of alien invasive species (AIS) – there are at least 88 known AIS in Cook Islands including 64 species of plants, 1 bird species, 9 insect species, 3 fish species, and 9 mammal species (Dog, (*Canis lupus*), Goat (*Capra hircus*), Cat (*Felis catus*), *Macaca mulatta*, House Mouse (*Mus musculus*), *Rattus exulans*, *Rattus norvegicus*, *Rattus rattus* and the Feral Pig (*Sus serofa*))¹². Root causes include disproportionate distribution of income, uneven employment opportunities across islands and amongst males and females, as well as a fairly high employment rate (13% of the total labour force versus an average of 9.2% globally (2012 statistics)). The unemployment rate in Rarotonga was much lower at 7%, compared to 27% and 35% in the southern and northern groups of island. Increasing affluence and modernizing lifestyle of the Cook Islanders has also increased consumption and use of natural resources.

The Prime Minister of the Cook Islands, Hon. Henry Puna, announced in August 2012 the establishment of the Cook Islands Marine Park encompassing approximately 1.1 million square kilometres of the country’s southern Exclusive Economic Zone (or more than 50% of the country’s EEZ). This commitment, including the financial aspects of such a commitment, underlies the need to gauge the increasing pressures on the environment vis-à-vis the goal to conserve the biodiversity for perpetuity and identify critical measures that need to be put in place to enable a win-win situation. In this regards, the Cook Islands sees great potential in sustainably utilising its vast wealth of genetic resources through a far-sighted vision which enables the fair and equitable sharing of benefits through access to genetic resources, part of which in turn is ploughed back into its conservation to sustain conservation initiatives in the country. It is hoped that with civic and community engagement in implementing the Access and Benefit Sharing (ABS) regime, there will be a paradigm shift from state-centric conservation to people-centric conservation thereby enabling the future of conservation in the Cook Islands as well as empowering local communities and livelihoods. Furthermore, the underlying problem related to the ABS is that the potential benefit which developing countries such as the Cook Islands can receive from the exploration and exploitation of their genetic resources for drugs and agrochemicals is not fully explored. This results in undervaluing the genetic resources the country harbours and their overexploitation, which in turn threatens the genetic resources. At the same time, spending worldwide on drug discovery research (amount to tens of billions of dollars per year) is virtually all conducted in developed countries rather than the host countries where the biodiversity occurs naturally. As a result, the benefits that host countries receive from the exploration and exploitation of their genetic resources are limited, both in terms of financial income and trickle-down benefits such as training and employment: this in turn limits their motivation and abilities to invest in the conservation of biodiversity.

Institutions and policies:

Government and Traditional Rule: The Cook Islands is a representative democracy with a parliamentary system in an associated state relationship with New Zealand. The Cook Islands Parliament consists of 24 members, coming from constituencies of the main island of Rarotonga and from the outer islands. The House of Ariki is a parliamentary body of the Cook Islands and is composed of Cook Islands high chiefs (Ariki). Its function is to: “*consider such matters relative to the welfare of the people of the Cook Islands as may be submitted to it by Parliament for its consideration and it shall express its opinion and make recommendations thereon to Parliament*”. The Cabinet is the executive arm of Government

¹² www.issg.org/database

and a Prime Minister heads the Cabinet. Each of the 10 inhabited outer islands has a representative Island Council (Outer Island Local Government Act 1987 with amendments, and Palmerston Island Local Government Act 1993) except Nassau, which is governed by a Committee. Each council is headed by a Mayor. The functions of the Council includes: (i) to carry into effect and administer, the provisions of Ordinance and by-laws that may be applicable to the Island; (ii) to assist in the co-ordination of any activity relevant to the economic and social development of the island; and (iii) to assist the Government of Cook Island in the good rule and government of the island. Again, each island has an 'Aronga Mana', the assemblage of the traditional leaders (*Ariki*) of each island that provide support to the Councils. Under Cook Island customary law, each district has an *Ariki* (paramount chief) and each *Ariki* has a number of *Koutu*-representatives of sub-districts and chiefs who are responsible for the cultural heritage of Cook Islands. The *Koutu Nui*, a formal assemblage of these chiefs is charged with overseeing the cultural impacts of modern lawmaking¹³. The Cook Island's national environmental authority is the National Environment Services (NES). The NES has a total staff complement of 28 staff¹⁴, of which only 4 focus exclusively on biodiversity in the Biodiversity Unit (BU). Also within the NES, is the Island Futures Division (IFD) which major functions include providing advice on multi-lateral environmental agreements (MEAs) to Government, NGOs, private sector and the general public as well as meeting obligations to MEAs, negotiate, coordinate and manage all projects relevant to MEAs and participate in negotiation meetings at regional and international level on behalf of the Cook Islanders. The IFD contributes to the overall outputs of the National Environment Service through Education and Awareness programmes and assistance to the Advisory and Compliance Division. The Ministry of Marine Resources (staff number of around 44, with 50% stationed in Rarotonga) is responsible for marine resource management. A National Research Committee has been established within the Prime Minister's office. This committee comprises of Government and non-Government agencies. Its role is to approve any research that is carried out in the Cook Islands, including biodiversity. The National Heritage Trust was established in 1999 by an Act of Parliament. The Trust has developed and maintained a biodiversity database. The Cook Islands multimedia Biodiversity database has been online since 2003, and presently has information on 4,500 existing species, native and introduced, including 2,500 with photographs to aid recognition. Well known groups, such as birds, lizards, fishes, flowering plants and ferns are essentially complete. The database development has three goals: (i) to record in a single database all local plants and animals with images and key identification features; (ii) To record relevant traditional and scientific knowledge; and (iii) To make this information available to the public to facilitate awareness and communication. The Ministry of Cultural Development also keeps a register of traditional holders and rights.

Traditional Conservation of Biodiversity: The protection of areas and species of special significance is not a new concept to the Cook Islands. The concept of reserves has existed in the Cook Islands for hundreds of years in one form or another. The imposition of the *ra'ui*¹⁵: a traditional system whereby access to a particular resource or area is forbidden for a given period, is still being practiced in the Cook Islands. The *ra'ui* are promoted and supported by the *Koutu Nui*¹⁶ and the *Koutu Nui* is responsible for the establishment of *ra'ui*. The advantage of using the traditional system in the modern context is that it is community based and managed. *Ra'ui* are locally managed by community members. Management measures include traditional practices – most commonly, seasonal closures of an area (mostly marine areas) to ensure replenishment of a stock of an important economic species (fish for example) – but now also include longer term closures from harvesting of areas to conserve particularly threatened species.

ABS Legislation: The Cook Islands has an ABS Bill called Biological Research and Benefits Bill drafted in 2006. This Bill was based on the Bonn guidelines, prior to the adoption of the Nagoya Protocol in 2010. Further, the Cook Islands' National Research Policy clearly outlines the National Research Committee and the Research permit process. The national administrative processes for issuing ABS license, negotiating and enforcing agreements have not been fully clarified and key stakeholders remain unaware of their roles in promoting ABS.

¹³ Sissons, J. 1994. *Royal Backbone and Body Politic: Aristocratic Titles and Cook Islands Nationalism since Self-Government*. The Contemporary Pacific.

¹⁴ http://www.environment.gov.ck/index.php?option=com_content&view=article&id=62&Itemid=29

¹⁵ The Cooks Islands Maori Dictionary defines a *Ra'ui* as: "1. A sign, usu, leaves on a branch set in place by the owner of a piece of land or water reserving it or its produce for his own or some special use; a prohibition. 2. Erect a *ra'ui* restricting the picking of fruit etc." Hoffmann, T.C. 2002. *The Reimplementation of the Ra'ui: Coral Reef Management in Rarotonga, Cook Islands*. Coastal Management 30: 401 – 418.

¹⁶ The *Koutu Nui* is a lawfully recognized indigenous representative body established in written law in 1972 under the amendment to the 1968 House of Ariki Act. Under Cook Islands customary law, each district has an *Ariki* (paramount chief) and each *Ariki* has a number of *Koutu* (representatives of sub-districts) and the chiefs who were responsible for the cultural heritage of the Cook Islands. The *Koutu Nui*, a formal assemblage of these chiefs, was charged with overseeing the modern lawmaking.

ABS Activities: Cook Islands Medical Technologies (CIMTECH) is a natural products research and development company that draws on the traditional medicines of the Cook Islands to bring new natural beauty skincare, cosmeceuticals, dermatological and pharmaceutical products to the market¹⁷. CIMTECH has established an access and benefit sharing agreement with the *Koutu Nui* regarding the research and development of traditional medicines that was developed under mutually agreed terms with prior informed consent (PIC). The Private company (CIMTECH) incorporates *Koutu Nui*, as well as the University on New South Wales (UNSW, Australia), as major shareholders. The company has developed technology derived from the traditional knowledge and genetic heritage of the Cook Islands under arrangements compliant with the Nagoya Protocol stated objectives. The existing commercial applications of this agreement are implemented with benefits accruing to the Cook Islands including technology transfer (i.e. intellectual property), extraction machinery and processes, plantation seedlings, and quality control equipment, processes and expertise. CIMTECH acquired three patents filed internationally covering the utilisation of particular plant extracts for therapeutic uses¹⁸. All of CIMTECH activities relating to the access of the plant material are conducted in the Cook Islands using Cook Islanders and Cook Islands owned companies. The plantations are owned and maintained by the local landowners who are paid a high premium for the plant materials provided. CIMTECH has spent over \$2 Million developing the intellectual property and commercial outcomes relating to the genetic materials. The extraction facility is leased by CIMTECH in an improvements-for-lease arrangement, whereby CIMTECH constructed a dedicated facility to be owned by the Cook Islands landowner in return for a 10-year commercial lease on the premises. CIMTECH has acquired and transferred to the Cook Islands the dedicated technology and machinery required for the extraction and standardisation of the material. CIMTECH is an Australian based company and all Cook Islands operations are conducted for CIMTECH by a locally based Cook Islands company: Matheson Enterprises. The first commercial product arising from the access and benefit sharing arrangement - TeTika Skincare¹⁹, was launched in the Cook Islands in 2012. The direct monetary benefits from that program have resulted in over \$400,000 for the Cook Islands economy since the program commenced in 2011, and is projected to contribute approximately \$100,000 per year to the Cook Islands economy. TeTika product sales by CIMTECH rely on Bioactive Cook Islands oils produced in the Cook Islands, depending on the concentration, account for up to 16% of the value of CIMTECH sales returning to the Cook Islands.

Long-term Solution: In order to safeguard the Cook Islands’ diverse genetic resources, the potential of genetic resources must generate tangible local and national economic benefits. The benefits will be in the form of business, employment and capacity building opportunities, through the discovery of new medicines, thereby providing a rationale for the preservation of the biological resources that contain the genetic material. This will present a paradigm shift from the situation described above, to one in which biodiversity-rich nations such as the Cook Islands are fully and equitably involved in this lucrative research process with the primary goal of promoting people-centric conservation and sustainable use.

Barriers: The achievement of the solution proposed above, however, has to date been impeded by a number of barriers:

Weak National Regulatory and Institutional Framework on ABS	Although the Cook Islands enacted the Biological Research and Benefits Bill in 2006, it has yet not ratified the Nagoya protocol. This is partly due to a lack of knowledge of the Cook Islands legislature, especially the Parliament (including the House of Ariki) and the National Research Committee, on the benefits for the country in ratifying the Nagoya Protocol. The concept of ABS is relatively new to the Cook Islands however it is an issue of some importance given the close and traditional dependence of the Cook Islands people on local biological resources. Further, progress has been somewhat slow since the enactment of the Bill due to the suboptimal institutional framework for implementation, and an absence of clear rules and regulations for implementation of the Bill, such as a system of prior informed consent. There is also a need to review the Bill in line with Nagoya Protocol. The Cook Islands also has a National Research Policy clearly outlining the National Research Committee responsibility in research approval and outlining the Research permit process. The national administrative processes for issuing ABS license, negotiating and enforcing agreements have not been fully clarified and key stakeholders remain unaware of their roles in promoting ABS. Little is known about research activities
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¹⁷ www.cimtech.com.au

¹⁸ CIMTECH holds international patents in the USA, Canada, Australia, Singapore, Indonesia, Republic of Korea and Japan. One patent covers bone and cartilage regeneration, the other covers wound healing and skin health and the third is a limited patent (Australia and USA) covering skin cosmetics.

¹⁹ <http://tetika.com.au> CIMTECH owns and has exclusive commercial rights to the use of plant extracts of *Terminalia catappa*, *Vigna marina* and *Cocos nucifera* alone or in combination for the promotion of skin health and improvement of skin injury. The TeTika product range is developed from the traditional knowledge of the use of the mentioned three plant species.

	<p>that access biological resources after they have received their research approval and there is limited capacity to monitor these activities in-country. There is no means of enforcement of the requirements of the approved permit, especially once the researchers have left the country.</p>
<p>Limited national technical capacities and awareness to maximize benefits from the nation's genetic resources</p>	<p>Poor management of traditional knowledge and practices (TKP) related to customary use of biological resources in the Cook Islands is a major gap. Understanding of TKP in the Cook Islands is usually limited to local practitioners such as <i>ta'unga</i> (traditional healers), many of whom are reluctant to share their knowledge of BD species used in traditional medicine due to fear of misuse and abuse by others. Oral history and records have been traditionally relied on to preserve knowledge however this can lead to loss of valuable information if this knowledge is not passed on. Programmes or attempts to record traditional knowledge have been inconsistent and ad hoc, leading to a major need to document traditional knowledge as well as on-going bio-prospecting research. The Cook Islands is one of the few nations in the Pacific that has actually implemented a project on access and benefit sharing, which has led to the marketing of a skin care product derived from a chemical from a plant. However, the country has not been able to build on this success due to limited local research and development capacities (capacity limitations in terms of human, technical, financial and infrastructure resources). This has meant that further potential for replicating the past success has been extremely limited till date. This has also led to no further development of value chain of potential products to maximize the economic potential of genetic resources in the nation and to link them to both biodiversity conservation and sustainable use, and also for the economic benefits of local communities and the country as whole. There is an urgent need to strengthen the institutional set up of the BU and individual capacity to enable better implementation of the ABS policy, ensuring sufficient competence for monitoring bioprospecting projects and facilitate value addition to biological resources in the country. There is a need for accelerating documentation of traditional knowledge (TK) associated with genetic resources, in order to ensure that an adequate PIC process will be conducted and NES will be assured that the holders of TK will be able to derive tangible and fair benefits from the ABS deals. Similarly, although many local community members are aware of the past ABS project, they also do not have full understanding on the options and opportunities to maximize local benefits through ABS and are not aware on the Nagoya Protocol provisions that require ensuring free prior informed consent and equitable sharing of benefits. There is also a clear need for bioprospecting work to be directly linked to biodiversity conservation work in line with objective one of the Convention on Biological Diversity namely the conservation of biodiversity.</p>
<p>Limited in-country scientific research capacity and experience with the negotiation and implementation of ABS agreements</p>	<p>There is currently one bioprospecting activity on-going and the company (CIMTECH) has entered a formal agreement in accessing the traditional knowledge with the <i>Koutu Nui</i>. However, in order to maximise the national benefits from ABS agreements, extraction facilities should be placed in-country. There is a need for the extracted chemicals that are exported to have standard documentation detailing the chemical nature of the products. The inability to provide such documentation places severe limits on the acceptability of extracted material in the international market. The alternative is to export raw plant material, and the associated risk of nutrient loss, and the loss of the major value added component of the supply chain. The refined product must also have safety and toxicology data to inform the safe handling and transport of material. The Cook Islands does not have the expertise or capacity to perform these tests currently. In the implementation of ABS agreements, the possible negative effects of the commercialisation of extract of a native plant should also be considered. There is a clear need to establish the scientific basis for the monitoring and control of the harvesting of the plant species at the outset. This allows for a more targeted and sustainable approach to supply and sustainability of the value chain, reducing guesswork and improving the acceptance of all environmental controls. A well designed and internationally acknowledged certification processes that will allow the product to be identified as compliant with the Nagoya Protocol is needed. Cook Islands cultural requirements, environmental standards and sustainability and high quality end product will allow the product to reach market with minimum of additional barriers in the export jurisdiction. Further, given the new nature of the topic and inadequate capacity of the BU and stakeholders, there is limited expertise in actually developing ABS agreements that are fully compliant with the Nagoya Protocol. Without model agreements and realisation of actual benefits to the country and concerned communities which can be replicated and up-scaled, the progress of advancing the ABS agenda in the country will remain slow.</p>

A.1.2 the baseline scenario and any associated baseline

Biodiversity Conservation:

The Cook Island Government annually invests around US\$ 53 million in all sectors of the Government. The current baseline investment by the national Government into environment management related actions with a bearing on biodiversity totals at least US\$ 12 million over the planned project period. This includes Government investment through the National Environmental Service of approximately US\$ 0.8 million per annum to incorporate biodiversity management in national and sectoral policies and planning processes and promoting and enhancing community participation and actions to help conserve biodiversity. Additionally, the Ministry of Marine Resources invests US\$ 1 million annually on the monitoring and control of illegal practices in its marine areas, on the implementation of the Cook Islands Lagoon Monitoring Programme (which includes water quality monitoring in Rarotonga, Aitutaki and Manihiki) and on education and public awareness programme on marine issues. The National Environmental Service is responsible for the enforcement of the Biological Research and Benefits Bill, while the National Research Committee (including its Manager) is responsible for approving ABS related research. The National Heritage Trust will during the project period continue updating the biodiversity database with traditional knowledge which is being provided by the traditional healers, while the Ministry of Cultural Development will keep a register of all traditional knowledge holders and rights. The ABS Framework and Capacity investment over the project period in the Cook Islands as a baseline figure is estimated at approximately US\$ 200,000²⁰.

Bio-discovery:

CIMTECH through its local counterpart Matheson Enterprises will invest approximately US\$ 400,000 over the project period in the further development and extraction of plant chemicals in its quest of the commercialisation of the TeTika Skincare products. CIMTECH intends to build upon this successful program with the second of the technology platforms derived from the access and benefit sharing arrangement. CIMTECH holds patents²¹ filed under the Patent Cooperation Treaty (PCT) in 7 countries and Europe covering the therapeutic uses of *Hibiscus tiliaceus* for the bone and cartilage repair. The healing of bone fractures is a lengthy process. Notably, cartilage does not contain blood vessels and therefore compared to other connective tissue repairs more slowly. CIMTECH's researchers found that extracts from *Hibiscus tiliaceus* and compositions comprising the same, promote bone and cartilage repair by inducing new bone formation and new cartilage growth. The data supporting the therapeutic potential of this is convincing however there are barriers as described above to the full commercialisation of this technology, and the ability of the Cook Islands to capitalise on the opportunity for the direct and indirect benefits intended under the access and benefit sharing arrangements.

A.1.3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project and; A.1.4) Incremental cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing

The project objective is to: develop and implement a national ABS framework, build national capacities and facilitate the discovery of nature-based products. The project will remove the aforementioned barriers and emplace necessary capacity with the BU and other relevant stakeholders, in particular CIMTECH and Matheson Enterprises Pty Ltd (Cook Islands) to jointly promote access and benefit sharing. The project plans to utilize the experiences of the existing Cook Islands Medical Technology (CIMTECH)-Koutu Nui access and benefit agreement to design and implement a national model of access and benefits sharing for the Cook Islands that will increase the amount of research and development, in a mutually beneficial manner, and to facilitate the implementation of the existing agreement to complete the objective of the access and benefit principle on as many levels of Cook Islands society and economy as possible. Additional technology transfer may be supported by the GEF NPIF, research on new products utilizing these technologies will be pursued, as well as workshops and stakeholder engagement relating to the ABS arrangement, to ensure as many relevant Cook Islands stakeholders receive benefit. Additionally, some analysis of the ways in which the ABS arrangement can further benefit the sustainable use and conservation of biodiversity in the Cook Islands could be pursued (bringing together the three main objectives of the CBD). The project will support the implementation of the following three components.

²⁰ This amount is a rough estimate. Exact baseline investment amounts will be obtained during the PPG phase.

²¹ A list of all patent applications filed from PCT/AU2010/001679 (priority date 10 December 2010, published 16 June 2011 as WO 2011/069214) entitled "Methods and Composition for Bone and Cartilage Repair": (i) Australia – Publication No. AU 2010330704 (A1); (ii) Brazil – Publication No. BR 112012013968; (iii) China - Publication No. CN 102770148; (iv) Europe - Publication No. EP 2509312 (A1) and EP 2509312 (A4); (v) India - Publication No. IN6044/DELNP/2012; (vi) Singapore - Publication No. SG 181571 (A1); and (vii) United States of America - Publication No. US 2013071359 (A1). All mentioned patents in all jurisdictions expire in the 10th December 2030

Component 1: Strengthened National Regulatory and Institutional Framework on ABS

This component will support strengthening of the national ABS regulatory framework in compliance with the Nagoya Protocol and provide support for timely ratification of the Protocol by Parliament through awareness raising and provision of necessary information targeting the legislature. In addition, the national legal framework on ABS will be fully established and made operational under this component. A National ABS Act will be developed and approved by parliament that is fully compliant with the Nagoya Protocol. It will mandate the Biodiversity Unit of the National Environment Services to coordinate all ABS activities. The legislation will also, in line with the National Research Policy, clarify the roles and responsibilities of the different government departments regarding the management of activities related to ABS of Cook Islands' genetic resources (including traditional knowledge, practices and innovations) and to ensure the equitable sharing of benefits that arise from this process. Among others, the legislation will expand the mandate of the National Research Committee to serve as the permitting authority for ABS activities in Cook Islands. Mechanisms will be developed to foster working partnerships between the National Research Committee (and in specific the National Research Manager), the Biodiversity Unit within the National Environment Services, the Ministry of Culture Development and the Ministry of Marine Resources, as well as among the law enforcement agencies (Police and Customs). In order to strengthen the national legal framework on ABS, the project will also assist in the development of ABS rules and procedures including ABS contract models, processes and related forms based on analysis and review of the current national processes. Under this component, the project will develop best practise guidelines for the ABS permit process including for community consultation and the development of model agreements.

This component will also support the further refinement of the existing ABS agreement between CIMTECH (user) and Koutu Nui²² (Provider) for use of genetic resources for skincare product development (based on traditional knowledge) to ensure consistency with Nagoya Protocol Benefit Sharing provisions and national legislation including specifying monetary and non-monetary benefits. This will be done through strong community consultations, awareness raising in the national ABS protocol development. The project will support this based on international best practice.

Component 2: Capacity building and awareness raising for the implementation of the National ABS Framework

This component will focus on building the capacity of the Biodiversity Conservation Unit and the Islands Future Division within the National Environment Services as well as National Research Committee and Ministry of Marine Resources for facilitating ABS agreements and handling issues under the Nagoya Protocol. Emphasis will be placed upon monitoring of bio-prospecting projects and facilitating value addition to genetic/biological resources in the country. Capacity training will also be provided for research institutions and selected private sector in Cook Islands to promote the addition of value to genetic and/or biological resources. The methodologies for ABS Capacity improvement will be gauged using the UNDP ABS Capacity Scorecard which has been developed specifically for ABS projects. The Cook Islands Biodiversity database information regarding traditional uses of plants will be expanded through the collection of such information and input into the database. The project will assist the government to develop online processes in place for ABS agreements, in line with National Environment Service's systems and procedures. Following these, the project will support the organization of national training for government staff from relevant government agencies and NGOs on the Nagoya Protocol provisions and national legislation. Such training materials will also be made available online for future reference and use. The project will also focus on the operationalization of ABS agreements such that some benefit sharing occurs during the course of the project. The bio-prospecting work will be linked strongly to biodiversity through the support to raise awareness of the need for *ra'ui* and the management of the areas declared under *ra'ui*²³. The possibility of setting up a *Ra'ui* Network Trust Fund will be investigated during the PPG stage mainly through consultations with the *Koutu Nui*. Mechanisms will also be developed that will ensure PIC.

Component 3: Bio-discovery and benefit-sharing based on the Traditional Knowledge on Bone and Cartilage Regeneration

²² The Koutu Nui is a lawfully recognised indigenous representative body established in written law in 1972 under an amendment to the 1968 House of Ariki Act. Under Cook Islands customary law, each district has an Ariki (paramount chief) and each Ariki has a number of Koutu – representatives of sub-districts and the chiefs who are responsible for the cultural heritage of the Cook Islands. The Koutu Nui, a formal assemblage of the chiefs were charged with overseeing the cultural impacts of modern lawmaking. The Koutu Nui was chosen as a partner in CIMTECH as it represents the broadest group of traditional leaders in Cook Islands and includes many Taunga (traditional healers/doctors). Their role in the community includes accepted traditional practices, notably the *ra'ui*.

²³ *Ra'ui* is a traditional conservation practice where access to a particular resource or area is forbidden for a given period that is still being practiced in the Cook Islands. The *ra'ui* are promoted and supported by the Koutu Nui and the Koutu Nui is responsible for the establishment of *ra'ui*. *Ra'ui* are locally managed by community members."

Under this component, the project will support the procurement of technical advisory services and assistance to improve the extraction protocol for natural biologically active plant compound derived from "Au" (*Hibiscus tiliaceus*), which, based on traditional knowledge has been shown to have bone and cartilage regeneration properties so that the active chemical can meet international standards. The existing ABS agreement between CIMTECH and Koutu Nui will be revisited and revised in order to ensure that it is in line with the new ABS Act and legal provisions are included ensuring a percentage of the funds received by the Koutu Nui is reinvested in the conservation of biodiversity. Further, the project will assist in the development of protocols for extraction and standardization of active compounds from "Au", and to undertake toxicological trials to ensure safety of the extract for therapeutic applications. The project will also support studies on the safety and toxicological studies on the active extracts and on the efficacy of the extract in bone defect and bone grafting to prove the therapeutic effect of the extract. CIMTECH will support the design of extraction processes and provision of specialized equipment and technology transfer (CIMTECH will provide the expertise and know-how while the technology will be transferred to local stakeholders working for Matheson Enterprises and other research institutions interested in the technology); toxicology and safety studies required to allow the production of Material Safety Data Sheet; design the infrastructure and equipment required to scale up the process including analytical equipment for testing of samples. It will further design the markers of efficacy and the laboratory processes required to identify and characterize the standard of extract, and design and oversee the preclinical and analytical studies and develop correlation to chemical markers of efficacy. CIMTECH through Matheson Enterprises will support the installation of equipment, implementation and refining of processes; production of the prototypes for the studies; installation and implementation of the laboratory processes required to identify and characterize the standard of the extract. These, along with GEF support, will ensure that Cook Islands is able to process the chemicals in country, which is currently lacking, as opposed to exporting the raw plant material abroad, which will also reduce the risk of loss of chemical characteristics of the plant material.

Local communities' capacities will be strengthened on sustainable cultivation/ collection of *Hibiscus tiliaceus* through the development of guidelines and oversight of the collection and cultivation regimes for *H tiliaceus*, as well as through the development and use of a defined certification process for refined extract for export. The project will also support an analysis of marketing opportunities for the extract through market analysis and development (internationally). The project will work with landowners, growers and national heritage groups to devise sustainable cultivation and harvesting plans. The project will also support the establishment of reporting and control of plant use and disposal of processed plants, as well as an accreditation system, and the development of certification fees and charges. Sustainability of plant use will be done through modelling of the impacts of plant utilization rates, replacement rates and the impact on the environment. Analysis of the various plant populations and correlation to efficacy markers will also be undertaken. Efficacy markers are biochemical or physical characteristics that can be measured and correlated with biological activity, in order to be used as a simple real time means to track efficacy of production. Analysis of soil characteristics and the effect this has on efficacy markers will also be analysed. These will help to establish a scientific basis for the monitoring and control of the harvesting of the plant species at the outset, and will allow for a more targeted and sustainable approach to supply and sustainability of the value chain, reducing guesswork and improving the acceptance of all environmental controls. The GEF support would also greatly enhance the certification process of extracts for export so that it is well designed and internationally acknowledged and fully compliant with the Nagoya Protocol, Cook Islands cultural requirements, and environmental standards.

Global environmental benefits: The project will contribute significantly towards conservation and sustainable management of the Cook Islands' genetic and biological diversity which has evolved due to its remoteness, as well as promote and lead to the conservation of the traditional knowledge of the uses of these resources. The conservation of the knowledge and its promotion into modern medicinal practices will be directly linked to the conservation of the resources through the project. By developing the national ABS framework and capacity and piloting Nagoya Protocol compliant ABS agreements, the project will facilitate sustainable and most cost-effective use of biological resources and ensure that the benefits will accrue to the nation and its people. Thus, the project will play a critical role in safeguarding the country's biological resources and their genetic diversity. The habitat²⁴ of *Hibiscus tiliaceus* will be conserved through traditional conservation and sustainable extraction practices. The awareness of the traditional conservation practice of *ra'ui*

²⁴ Area to be determined during PPG. Habitat refers not only to the geographical occurrence of the species, but also to the areas that provide vital ecosystem services e.g. water provision from upstream catchments (as specie grows on river banks). *Hibiscus tiliaceus*'s biogeographic distribution covers the regions of Eastern and Northern Australia, Oceania, Maldives and Southeast Asia, including the Cook Islands. Since the Cook Islands is one of the countries of origin of *H. tiliaceus*, this project is eligible under the mandate of the Nagoya Protocol. In the Cook Islands, the coverage of *H. tiliaceus* is most of the coastal regions of the large islands, and the banks of almost all the rivers. The plant is one of the most prevalent in the Cook Islands. Its conservation status is secure.

(currently mostly marine/coastal areas) will be increased due to the monetary and non-monetary support from the implementation of the project to the *Koutu Nui*. This will result in more general public support and adherence to the closed area and period and the conservation of fish, cucumber and other species that were diminishing in the closed areas. The possible set-up of a *Ra'ui* Network Trust Fund to be capitalised by revenues from ABS benefit sharing will result in increased long-term sustainable financing to the *ra'ui* system in the Cook Islands.

Innovativeness, sustainability and scale-up potential: The current preclinical data available demonstrates a regenerative effect on bone injury from the chemical extracts from “Au”, its actual utilization would be unprecedented and extremely innovative. The potential of this project to alleviate disability resulting from bone injuries in both the developed is significant. The research that was conducted to develop the base technology to this point was so unique, novel and innovate that it resulted in the award of a PhD and 3 international patents. As there are no current facilities for the production of materials for this project in the Cook Islands, and all of the extraction methods, equipment and processes would have to be custom designed and modified, there will be considerable transfer of technology and innovation in this arena as well. The technology transfers involved in this project represent the first high tech manufacturing project in the Cook Island. The project is sustainable as it focuses on establishing the systemic and institutional capacity of ABS management in the Cook Islands. In addition to the institutional and legal framework, the project will look at training both Government as well as community members in ABS-related tasks creating a firm, sustained capacity for the future. The ABS agreement piloted by the project will provide opportunities to test and ensure the robustness of the enabling environment and the capacity supported by the project. The updating of legislation, the lessons learned from the piloting of an ABS agreement and the capacity installed in Government and local communities will induce the opportunities to scale up ABS-related activities in the country. The experiences of the CI will also be replicable to other nations globally in terms of operationalizing the Nagoya Protocol.

A.2 Stakeholders: Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

Key stakeholders involved in the project are presented below.

Stakeholder	Expected Role in Project Implementation
The House of Ariki and Te Koutu Nui	The House of Ariki represents the tribal leaders across the Cook Islands. Given the strong traditional knowledge focus of the project the House of Ariki will be consulted and capacitated in their role of providing traditional leadership advice to the parliament. Their support to the ABS Act is paramount in its passing in Parliament. The <i>Koutu Nui</i> is a major shareholder of CIMTECH and will be involved in all components of the projects. The <i>Koutu Nui</i> will also take a lead role in ensuring the investment of financial benefits in the management of <i>Ra'ui</i> .
The Cook Islands Government National Environment Service, Biodiversity Unit and Island Futures Division	The National Environment Service is the focal Government Agency responsible for implementing the CBD, the CCD, and related MEAs. The National Environment Service will be the primary agency responsible for coordination and management of the project and particularly on implementation of activities related to terrestrial biodiversity conservation and ABS. It will also facilitate the linkages with other related project initiatives in country, both internationally and nationally. It will work closely with Crown Law Office in the development of legislative and regulatory frameworks that will allow this project to be governed to high level of environmental and quality assurance, and implement the environmental and conservation benefits of this project. The Island Futures Division will be responsible for some of the education and awareness raining that will be conducted on the project.
Matheson Enterprises	This is a wholly owned Cook Islands company that operates existing CITMECH projects under license within the Cook Islands and will manage the development, operations and export components of <i>Hibiscus tiliaceus</i> on this project.
CIMTECH	CIMTECH is the company that holds the intellectual property rights derived from the traditional knowledge and genetic resources of the Cook Islands under agreements with the Koutu Nui of the Cook Islands. CIMTECH will provide the technology transfer, the commercial supply agreements and the capital required for the production of the export quality material.
Cook Islands Natural Heritage Trust (CINHT):	The Natural Heritage Trust was established in 1999 by an Act of Parliament. The Natural Heritage Trust played a key role during NBSAP development and implementation. The Trust also has developed and maintained a biodiversity database, which comprises nearly 2 decades of baseline biodiversity information specifically to the Cook Islands. The Natural Heritage Trust will be a key stakeholder in the project design and development, and will play a technical advisory role during implementation.
Te Ipukarea Society (TIS)	TIS is a Cook Islands non-governmental organisation with 16 years of experience on addressing global and national environmental issues. Their mission is “to promote the balance and harmony, which should characterise the relationship of the Cook Islands people with other components of our environment. TIS would assist in the provision of ABS public awareness activities as well as assist the Koutu Nui in advocating and

	managing the Ra'ui.
Local community groups	Local communities will be primary agents to manage community conservation areas and also in local agro-ecosystems management. Local traditional leaders as well as formal leaders (such as the parliamentarians) will play key roles in ensuring local conservation area declaration and management, whilst local farmers groups/ fishers groups, women's groups, youth groups etc. will also play key roles in different aspects of conservation planning, implementation and also in landscape management under this ridge to reef programme.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Risk	Level	Mitigation Measures
Expertise deficit – the lack or loss of highly qualified personnel to conduct the project.	Medium	CIMTECH will train Cook Islanders employed by Matheson Enterprises in the processes and the science required. CIMTECH and Matheson Enterprises will both have personnel independently capable of conducting all necessary processes and will provide succession planning by training additional individuals.
Environmental Damage – The excessive removal of plant materials beyond the carrying capacity of the environment or without consideration of the ecological role of the plant	Low	The National Environment Service will ensure that all plant materials acquired for the project are done under supervision that includes limits on the volume from any particular site, and the assessment of the local environmental conditions to ensure that the impact on the environment is minimal and all harvesting is performed as a sustainable activity.
Climate Change – Sea level rise, increase in temperature and extreme weather events	Low	The potential of the sea level to rise will potentially affect some of <i>Hibiscus tiliaceus</i> habitat, however this plant is particularly resistant to salt water and grows in a habitat range tens of meters above the likely impact of sea level rise and the extraction facility is constructed on high ground away from the ocean. There is the possibility of more or more intense tropical cyclones, and this could affect the physical infrastructure and the production of materials if the harvest sites are directly impacted. The facility is built to withstand severe cyclones with additional reinforcement and footings being incorporated into the design. The plant component of interest is produced over many years and is unlikely to be substantially damaged during an extreme weather event.
Efficacy loss - the inadvertent loss of efficacy occurring when the scaling up of a production line	Low	The larger scale extraction facility mirrors the equipment utilized in the bench-top extractions used previously in efficacious productions. Variations built into the new processes to improve the system also have interchangeable components that allow for the reversion to the less optimal but previously proven processes.
Safety issues - The identification of adverse events in the scaled up product	Medium	The safety of biologically active products is an essential component to the viability of the program. None of the previous studies have demonstrated any adverse events that suggest significant risk. The processing will be meticulously cleaned and the solvents for use will be of extremely high grade. The removal of solvents will be complete and thorough. Safety issue if identified will need to be either severe or identified within the therapeutic range in order to significantly prevent the project from progressing.
Social concern over project – the reaction of Cook Islanders over the utilization of their traditional knowledge	Low	The disclosure of this project has been in the public domain since the announcement of the commercial program in April 2011 at the National Economic Summit where it formed the basis of a Keynote address. Overwhelmingly the public sentiment has been positive, with only a few persons who did not approve. The Koutu Nui voted unanimously for the project at its conception and been fully informed of the developments along the way. The launch of the first commercial products TeTika was conducted with the Koutu Nui restating their blessing and involvement, and the launch was opened with a speech by the Prime Minister of the Cook Islands and the President of the Koutu Nui, with the Queens Representative and head of the House of Ariki present and in full support. Transparency in process and the demonstrated ability to achieve scientific, commercial and social milestones is the key to ensuring that the social concerns are unlikely to present an obstacle.
Supply constraints - Potential demand outstripping supply capabilities.	Medium	The potential demand for this product is very large, however it is unlikely to outstrip supply constraints in the short term. The time required for therapeutic products to progress through the regulatory path to market is long and will provide time for increasing capacity. The extraction systems are modular and

		take approximately 3 months to replicate if needed. The plant sources are slow growing, however are in plentiful supply especially on the outer Cook Islands. The establishment of a second processing centre on Aitutaki is a likely second stage development.
Rejection of material – The possibility of the material produced being unsuitable for use in the therapeutic goods supply chain	Medium	The Cook Islands currently does not have regulations that would provide comfort to partnering companies that the product is made to an appropriate standard. Key to this project is the development of legislative and regulatory frameworks that will ensure that the product will be capable of being certified as being produced to a high standard. Processes will be followed to good laboratory standards. If the requirements are for GMP manufacturing, there will be a very high cost impost on the manufacturing costs that may render the project non-viable commercially and will need substantial next step upgrades to a new level of manufacturing standards.

A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:

Implementation of the proposed project will be carried out in coordination with, and where relevant, building on the on-going GEF funded and other donor/ partners supported projects, which are listed below:

- UNEP-GEF PAS Implementing the Island Biodiversity Programme of Work by Integrating the Conservation Management of Island Biodiversity: this initiative is supporting a number of activities relevant to the proposed project, such as a programme to conserve rare Vairakau Maori (traditional medicine) plants; a program to conserve rare birds, rare plants and marine turtles in Mauke and northern islands; and a program to manage Teroto Nui and Teroto Iti te Pito o Kare (‘muddy lakes’) on Mitiaro.
- The UNEP-GEF PAS Prevention, Control and Management of Invasive Alien Species in the Pacific Islands: This project is working in the following islands to support several activities such as ship rat early detection surveillance (trapping and monitoring) on Aitutaki, Suvarrow and Atiu; promoting management practices for Cuscuta and Beach Burr on Rarotonga and Pukapuka; for sand flies on Aitutaki and Mitiaro; and eradicate red passion fruit using best management practices in Mauke.
- Cook Islands Ridge to Reef Project –this UNDP-GEF project is currently under design and it intends to support the operationalization of a large marine protected area in the country. This project will ensure that there is strong coordination and cooperation between the two projects on issues of capacity building and awareness raising.
- ABS Capacity Development Initiative: This GIZ-implemented multi-donor project is supporting capacity building in the Pacific. The UNDP-GEF project will work closely with this regional initiative to ensure that there is no duplication of activities, and that lesson from around the region informs the project’s actions in the CI and lessons from the CI are also fed back to other countries.
- UNEP – GEF medium size project ‘Ratification and Implementation of the Nagoya Protocol in the countries of the Pacific’ – to be delivered in partnership with SPREP (this project will cover a number of Pacific countries, including Cook Islands). This project will undertake a scoping study of the existing laws and regulations related to ABS in the countries, develop a strategy and action plan for the implementation of ABS measures, and build capacity among stakeholders with particular emphasis in the Government agencies in charge of making the protocol operational. The project will also have an emphasis of learning from other countries in their implementation of the Nagoya protocol. Strong coordination between the two projects will be required. A meeting will be held in November 2013 to ensure the coordination and synergy between these two projects.

A Technical Working Group will be established that ensembles technical experts on biodiversity and ABS-related issues and all the related projects in the Cook Islands will be presented on this group. Regular meetings will be held between the different projects to leverage synergies and ensure efficiency in implementing the projects. The studies conducted and information gathered under the other projects will be integrated into project development and implementation.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:

The project will directly support the implementation of the Cook Islands’ National Sustainable Development Plan (NSDP) (2011-2015). The Government has identified, under its Priority Area 1 “Economic Development” the following key objectives, which this project will directly contribute towards

1. An energised and growing green economy through supporting our key economic drivers and encouraging environmentally sound innovation in potential areas of growth.
2. Enterprise is enabled by establishing an innovative environment conducive for existing businesses to confidently grow and for new businesses to start, grow and thrive in our communities.
3. Our Cook Islands cultural and environmental values are integral to business decision making and practice.

The plan also explicitly presents “The use of all our natural resources are managed well to ensure their sustainability” as one of its key Objectives, to which this project will directly contribute towards. The project will also directly contribute to the Cook Island’s NBSAP Strategic Goal D: Ensure that the uses of biodiversity, including genetic resources, bring equitable benefits to relevant stakeholders. The project will also contribute to Strategic Goal F: Make biodiversity information more readily available to all stakeholders and interested people and Strategic Goal H: Secure long-term financial sustainability for all biodiversity related activities and programmes.

The project will directly support the Cook Islands to achieve the following Aichi Targets; especially those under Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services, particularly Target 16. By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

B.2 GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:

This project is consistent with the following objectives of the NPIF: a) Support Parties in reviewing their own capacities and needs on ABS with a focus on the provisions of existing national policies, laws, and regulations and to strengthen the enabling environment at national level through the development of appropriate policy and institutional measures to promote the fair and equitable sharing of benefits arising from the utilization of genetic resources, including by appropriate access to genetic resources; b) Support Parties to implement national and regional projects to promote technology transfer on mutually agreed terms, private sector engagement, and projects targeting investments in the conservation and sustainable use of genetic resources in-situ to accelerate the ratification and implementation of the Protocol; c) Support Parties to undertake activities to increase public awareness regarding the implications of the Nagoya Protocol; and d) Support Parties to further the knowledge and scientific-base for the implementation of the Nagoya Protocol.

B.3 The GEF agency’s comparative advantage to implement this project:

UNDP has supported a number of national level planning and assessments on environmental issues in the past. With the support from the GEF, UNDP has supported the development of the National Biodiversity Strategy and Action Plan, to implement a Biodiversity Enabling Activity 'Add-on' Component and also to undertake a National Capacity Self-Assessment. In addition, UNDP also implemented several regional/ global projects that have had a component for the Cook Islands. For example, it implemented the GEF funded South Pacific Biodiversity Conservation Programme, a capacity building project on Sustainable Land Management, and another on Integrated Water Resources Management. Under the International Waters programme, UNDP has also implemented several GEF supported projects in the country, such as the Implementation of the Strategic Action Programme (SAP) of the Pacific Small Island Developing States; Pacific Islands Oceanic Fisheries Management Project; PAS Implementing Sustainable Integrated Water Resource and Wastewater Management in the Pacific Island Countries ; and the Implementation of Global and Regional Oceanic Fisheries Conventions and Related Instruments in the Pacific Small Island Developing States (SIDS). UNDP has also supported Sustainable Village Development Plans development in Pukapuka and Mitiaro islands, and similar exercises are being planned in Rarotonga. These plans created good momentum for community engagement, and identified community needs and plans in agriculture, water, and coastal issues, but without integrating climate risks, and providing funds for actual implementation. UNDP is also in the process of implementing an Adaptation Fund Board supported project in the country. This planned project will build on experiences of past projects and will build on on-going projects.

The United Nations Development Assistance Framework (UNDAF) for the Pacific Sub-region for 2008-2012, which also covers the Cook Islands, has noted under Outcome 4 that the UN will assist Pacific nations in “The mainstreaming of environmental sustainability and sustainable energy into regional and national policies, planning frameworks and programmes; and Pacific communities sustainably using their environment, natural resources and cultural heritage.” Therefore, this proposed project will directly support this Outcome. Under this Framework, UNDP’s Country Program Document (CPD) for the Cook Islands (2008-2012) has identified sustainable environment management as one of the key areas for cooperation. The CPAP has stressed that UNDP will assist the Cook Islands achieve MDG 7 by providing

coordinated and gender sensitive policy and technical advice to address serious environmental challenges; supporting community based environment management and disaster risk reduction – including village and local level plans development and capacity development. UNDP has been supporting numerous ABS projects in Asia and the Pacific, in partnership with the GEF.


PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):
(Please attach the Operational Focal Point endorsement letter(s) with this template).

NAME	POSITION	MINISTRY	DATE(MM/DD/YYYY)
Mr. Vaitoti TUPA	GEF OFP and Director	National Environment Service	OCTOBER 2013

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.

AGENCY COORDINATOR, AGENCY NAME	SIGNATURE	DATE (MM/DD/YY YY)	PROJECT CONTACT PERSON	TELEPHONE	EMAIL ADDRESS
Adrian Dinu, Officer-in-Charge and Deputy Executive Coordinator, UNDP - GEF		December 6, 2013	Johan Robinson, Regional technical Advisor for Biodiversity, UNDP	+662 304 9100 Ext. 2729	johan.robinson@undp.org