



# Solomon Islands National Biosafety Framework

MAY 2012

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## FORWARD

The Government of Solomon Islands recognises the importance of protecting its Biological Diversity against threats posed by Living Modified Organisms (LMOs), taking into consideration the fact that the biodiversity is the basis of our peoples' livelihood. With the ratification of the United Nations Convention on Biological Diversity (UNCBD) in 1995, the government also ratified Cartagena Protocol to Biosafety in 2004. This is an international agreement on Biosafety, which is a Protocol to the Convention on Biological Diversity.

The development of the National Biosafety Framework is a commitment towards the Cartagena Protocol and more importantly focus on the need to have mechanisms at the national level for coordination and dealing with Living Modified Organisms (LMO) issues. The Framework provides guidance through policy, legal, administrative and technical instruments to ensure an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology. It is developed taking into consideration the potential adverse effects on the conservation and sustainable use of biological diversity and the risks to health of Solomon Islanders.

The steps taken to finalise this Framework are challenging. The commitment and dedication made by my ministry and all partners prior to its completion is unreservedly acknowledged. Wider consultations through meetings were conducted to ensure high level of participation in the process. By doing so, it is expected that an understanding was built and partnership been established to take responsibility for the successful implementation of this Framework.

Therefore, I am appealing to partner ministries and stakeholders to take ownership of this document and act swiftly in promoting and addressing this emerging issue. This is an equally important framework that recognizes the need to protect our environment

from issues relating to GMOs. Especially in our national setting where biological diversity is significant to our livelihood and support majority of people who depend on natural resources for food, good health and survival. The Implementation Framework is expected to guide our contribution and specify our responsibility in ensuring our commitment.

As the Minister responsible for the Environment and on behalf of the government of the Solomon Islands, I have the pleasure of endorsing the Framework. The government is committed to work closely with all partners under this Framework. It paves the way forward in protecting our biodiversity from threats posed by Living Modified Organisms (LMOs).

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Minister for Environment, Climate Change, Disaster Management & Meteorology

## **ACKNOWLEDGEMENTS**

The Solomon Islands Government through the Ministry of Environment, Climate Change, Disaster Management and Meteorology sincerely acknowledges the financial support from UNEP based on an understanding and an effort to complete the National Biosafety Framework process which had been delayed for a number of years.

The Government expresses its deepest gratitude to the consultant, Mr Fred Siho Patison, Telios Corporate and Consultancy Service for finally collating information from all stakeholders in the National Biosafety Framework. The past effort in trying to put together this document is also recognised, especially by Pacific Horizon Consultancy Group, ECDM Staffs and others. Many thanks to various stakeholders including representatives of the government ministries, NGOs, members of the private sector and individual experts who have contributed in one way or another through the consultation process for the finalisation of the Framework.

This is a product of collective efforts and commitment by all stakeholders to have in place a National Biosafety Framework for Solomon Islands.

## ACRONYMS

BCH	Biosafety Clearing House
CA	Competent Authority
CPB	Cartagena Protocol on Biosafety
CBD	Convention on Biological Diversity
CITES	Convention on International Trade of Endangered Species
EAC	Environment Advisory Committee
EIA	Environment Impact Assessment
FAO	Food and Agriculture Organisation
GEF	Global Environment Facility
GM	Genetically Modified
GMO	Genetically Modified Organism
GNI	Gross National Income
LMO	Living Modified Organism
MAL	Ministry of Agriculture and Livestock
MECDM	Ministry of Environment, Climate Change, Disaster Management and Meteorology
MHMS	Ministry of Health and Medical Services
MTDS	Mid-Term Development Strategy
NBC	National Biosafety Committee
NBF	National Biosafety Framework
NBSAP	National Biodiversity Strategy and Action Plan
NCRA	National Coalition for Rural Advancement
NGOs	Non-Government Organisation
PAAC	Pacific Adaptation to Climate Change Project
RAMSI	Regional Assistance Mission to Solomon Islands
SPC	Secretariat of the Pacific Community
SPREP	The Pacific Regional Environment Programme
SPS	Sanitary and Phytosanitary
UNCBD	United Nations Convention on Biological Diversity
UNEP	United Nations Environment Program
USP	University of the South Pacific
WTO	World Trade Organisation

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## 1.0 Introduction

The development of the National Biosafety Framework signifies Solomon Islands commitment for the protection of its biological diversity from the threats of Genetically Modified Organisms (GMOs). It is a combination of policy, legal, administrative and technical instruments developed to ensure an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology. It is developed taking in account the potential adverse effects on the conservation and sustainable use of biological diversity and the risks to human health. The vast majority of the Solomon Islands population still lives in rural areas making a living from the natural resources and subsists on gardening, fishing and hunting.<sup>1</sup> The Solomon Islands biological diversity is therefore significant to their livelihood. The development of this framework also reflects the commitment of the Solomon Islands as party to the Cartagena Protocol on Biosafety. In that regard recognising the need to protect human health and the environment whilst recognizing its potential for the promotion of human well-being, particularly in meeting critical needs for food, agriculture and health care.

The National Biosafety Framework for the Solomon Islands has come a long way in the making. The National Biosafety Framework project was funded by the United Nations Environment Programme and the Global Environment Facility (UNEP-GEF) to enable the Solomon Islands Government meet its obligations under the Biosafety Protocol to the Convention on Biological Diversity, by preparing a Biosafety Framework for the country. The project duration was initially for eighteen (18) months from October 2002 to March 2004. The project however was delayed due administrative and capacity issues until 2011.

The Solomon Islands Biosafety Framework was developed with considerable limitations due to the continuous delay of the project. In particular the approach for a biosafety

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<sup>1</sup> Morgan Wairiu, 'Solomon Islands State of Environment Report 2008 ' (Ministry of Environment Conservation and Meteorology 2008 ) 19-18.

policy and biosafety legal regime which should form the major elements of the National Biosafety Framework. Therefore the approach taken in the drafting of this document was to look at opportunities for Biosafety in existing sectoral policies and mechanisms and utilize the recent developments such as the biosecurity bill as the initial step towards the development of a more focused legal framework. This framework provides emphasis on the principles and concepts that will form basis of a future Biosafety legislations for the Solomon Islands. It further provides the administrative procedures for biosafety which include the systems for handling notifications and request and for monitoring and enforcement. The final component of the framework is public consultation, information and capacity building which are critical to having in place effective response measures to address biosafety issues. It is important to emphasize that the obligation of Solomon Islands as a party to the Cartagena Protocol provides the basis for the approaches adopted in this framework.

## **2.0 The Solomon Islands Context**

The Solomon Islands is made up of hundreds of coral atolls and small volcanic islands which form an archipelago of islets stretching some 1,450 km across the south-western Pacific Ocean with a total land area of about 28,000 km<sup>2</sup>.<sup>2</sup> The terrain ranges from rugged mountainous islands to low-lying coral atolls forming a chain from southeast of Papua New Guinea across the Coral Sea to Vanuatu.<sup>3</sup> The main islands of Choiseul, New Georgia, Santa Isabel, Guadalcanal, Malaita, and Makira have rainforest mountain ranges of mainly volcanic origin, deep narrow valleys, and coastal belts lined with coconut palms and fringed by reefs.<sup>4</sup> The smaller islands are atolls and raised coral reefs, often spectacularly beautiful.<sup>5</sup>

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<sup>2</sup> Morgan Wairiu, 'Solomon Islands State of Environment Report 2008' (Ministry of Environment Conservation and Meteorology 2008) 7.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

The country is recovering from a civil unrest during the period 1998 – 2000 that threatened the country's socio-economic stability were it not for the intervention of its Pacific neighbours through the Regional Assistance Mission to the Solomon Islands (RAMSI). RAMSI is a multinational police centred force organized by Australia which arrived in the country in 2003 under the *Facilitation of International Assistance Act 2003* to assist in restoring law and order and rebuilding the country's institutions, which had become largely non-functional.<sup>6</sup>

The Solomon Islands is recovering from the civil unrest and has experienced substantial economic growth recently. RAMSI has also expanded its work to contribute to good governance and strengthening the government machinery. The political situation in the country remains unstable with changes of government increasingly frequent.

The Solomon Islands economy has been described as a dual economy due to the importance of its large informal sector.<sup>7</sup> There is a very low level of formal employment in the country; therefore the informal sector caters for the vast majority of people who derive their livelihoods from their own land, labour and resources.<sup>8</sup> A recent World Bank report showed that the Solomon Islands gross national income (GNI) per capita for the formal economy is under US\$910.<sup>9</sup> The report also stated that 75 percent of the labour force is engaged in subsistence agriculture, with less than 25 percent in paid employment.<sup>10</sup>

The economy has experienced good growth rates of around 7 percent averaged for 2004-2007, the global economic crisis impacted strongly on the domestic economy, causing it to shrink by 2.2 percent in the period 2008 - 2009.<sup>11</sup> The economy is expected

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<sup>6</sup> *Facilitation of International Assistance Act 2003* (Solomon Islands)

<sup>7</sup> AUSAID, 'Solomon Islands Rural Livelihoods and Broad Based Growth Strategy ' (Australian Agency for International Development 2004) 6.

<sup>8</sup> Ibid.

<sup>9</sup> World Bank, 'East Asia and Pacific Economic Update ' (World Bank 2010) 76-8.

<sup>10</sup> Ibid.

<sup>11</sup> CBSI, '2009 Central Bank of Solomon Islands Annual Report ' (Central Bank of Solomon Islands 2009 ) 7.

to grow by around 6.3% in 2011, in light of the positive outlook for all sectors.<sup>12</sup> The economy is heavily dependent on forestry, agriculture, fishing, mining sector and, more recently, an expanding tourism sector.<sup>13</sup> Despite of the country's low ranking on many development indicators, recent studies have shown that most rural communities have been buffered from the more distressing effects of poverty by the richness of the natural resource and the resilience of customary, social and production practices.<sup>14</sup> These protective buffers such as customary, social cohesion and relations that encourage responsibility towards one another and sharing of resources are significant for the resilience of rural communities.

### **3.0 The Need for the National Biosafety Framework**

#### **3.1 Significance of Biodiversity**

The country's biodiversity is of global significance both on land and marine environments, much of it still undescribed. The Solomon Islands forests are recognised as "Globally Outstanding" and are included as an eco-region in the Global 200 listing, with high degree of endemism.<sup>15</sup> Marine biodiversity is at similarly remarkable levels, with Solomon Islands forming part of the Coral Triangle of six countries with extreme levels of marine biodiversity<sup>16</sup>. Recent studies and data have shown that;

- The Solomon Islands Rain Forests Eco-region was included in the Global 200 list and is ranked in the highest category of "Globally Outstanding".<sup>17</sup> A reflection of the significance of the forests biodiversity of the country.

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<sup>12</sup> CBSI, '2010 Central Bank of Solomon Islands Annual Report ' (Central Bank of Solomon Islands 2010)

<sup>13</sup> Ibid.

<sup>14</sup> above n 7.

<sup>15</sup> WWF Solomon Islands, 'A Forest Strategy for Solomon Islands 2006-2011' (WWF Solomon Islands 2006)

<sup>16</sup> Ministry of Environment, Conservation and Meteorology (2008), Solomon Islands State of Environment Report.

<sup>17</sup> The Nature Conservancy, 'Solomon Island Marine Assessment Report ' (The Nature Conservancy Solomon Islands, 2004 )

- Solomon Islands is globally known as a hotspot for bird diversity, there is no other place in the world can be compared to Solomon islands' bird diversity, not even the Galapagos Islands, where speciation and population variation between islands is so marked as in the Solomon Islands''<sup>18</sup>
- With over 500 species of coral described, the Solomon Islands coral diversity is one of the highest on earth, paralleled only by Raja Ampat in Indonesia.<sup>19</sup>
- The recent survey result shows that Solomon Island has one of the richest concentrations of reef fishes, a total of 1019 reef-dwelling fish species in world surpassed only by three sites in the Raja Ampat Islands (Indonesia).<sup>20</sup>
- Solomon Islands is also the only Pacific Island Country with a world heritage natural site – East Rennell world heritage area with a variety of unique species. The site however is currently being threatened by proposed logging operations.

### 3.2 Agriculture and Subsistence Livelihood

The Biodiversity of the Solomon Islands is the basis for most of the economy and large degree of the future potential for development. This is recognised in the National Coalition for Rural Advancement (NCRA) policy document stating that;<sup>21</sup>

*“The Solomon Islands is rich in natural resource endowments and as such its economic future depends critically on its ability to achieve sustainable economic growth within an appropriate framework of environmental protection and conservation”*

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<sup>18</sup>

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

<sup>21</sup> NCRA Policy document, October 2010. 21

Solomon Islands is an agrarian country as 85 percent of the people are smallholder farmers cultivating certain land area under some form of agricultural production systems for their livelihood.<sup>22</sup> As an industry, agriculture contribution goes much further than the \$75,300,000.00 earned by the few commercial farms and the 11,859 workers employed on them throughout the rural areas and urban centers.<sup>23</sup> Agricultural products represent 24.2 per cent of the national exports and underpin one in five jobs in the entire economy – both in the urban centers and in the rural areas of this country.<sup>24</sup> As such Agriculture in Solomon Islands remains vital to this country's economy and social prosperity. The dependency of the country on agriculture and fisheries underlie the importance of Biosafety to Solomon Islands.

The subsistence sector dominates domestic production and is at the very centre of economic and human development of Solomon Islands. Subsistence food production, housing and medicinal sources dominate the supply of basic livelihood factors for the majority of the population, including a significant proportion of the urban population. Food production is facing threats from pests and disease, with Giant African Snail remaining a major threat on Guadalcanal, and fruit fly spreading throughout the Solomon Islands.

Cocoa pod borer is a threat to cocoa industry in Solomon Islands, therefore border surveillance is important to curb the import of plant material which could be host to plant disease.

The subsistence sector depends on key biodiversity either directly or indirectly, particularly in the form of functioning biomes such as coral reefs and mangroves. Habitat destruction is the most significant threat to these biomes, and is being driven by commercial activities as well as subsistence and settlement spread including

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<sup>22</sup> Agriculture cooperate plan 2010

<sup>23</sup> ibid

<sup>24</sup> ibid

destruction from natural disaster. The poorly understood and little quantified nature of this major sector means that policy measures to support or protect it remain unclear.

### **3.3 Food Security and Human Health**

In the Solomon Islands, the majority of rural people still lives and depend on subsistence food production and fisheries. A multitude of cultivated plants such as yams (*Dioscorea spp.*), taro (*Colocasia esculenta*), giant swamp taro (*Cyrtosperma Merkussi*) and sweet potatoes (*Ipomoea batatas*) and other crops such as bananas (*Musa spp.*) and watermelon (*Citrullus lanatus*) are still part of people's main staple diet. There is also a wide range of indigenous food crops and plants that are important to the food security of the rural populace that maybe under threat from the introduction of LMOs. It is therefore important that measures are in place to protect local foods crops from the negative effects of GMOs.

Solomon Islands as a developing country is experiencing substantial growth in economic sectors such as agriculture and fisheries. There is also a large amount of food products being imported into the country which may contain GMOs and therefore measures are required to ensure their safe use and propagation in the country.

### **3.4 Aesthetic Values of Biodiversity**

Although the tourism industry is quite small, there is enormous branding potential associated with the unique biodiversity of Solomon Islands. During the 1990s Solomon Islands was source for more than 10% of ornamental aquarium species worldwide. It continues to harbour enormous potential in this industry.

## **4.0 National Biosafety Policy and Related Policies**

### **4.1 Solomon Islands NBF Policy**



The Biosafety policy objectives are formulated to be consistent with other policy objectives related to food, agriculture, forestry, fisheries, health, environment and trade and sustainable development. The components of the NBF include the regulatory framework, administrative structure and the decision making procedures as well as mechanisms for public participation and information.

The Solomon Island NBF policy vision is for;

*“Solomon Islands Biological Diversity including their livelihood need, culture, spiritual, health, traditional values and international trade is protected from any adverse effect and influences of the uses of living modified organism”*

#### **4.11 The Policy Objectives**

1. Formulation and Development of an appropriate administrative, regulatory and legislative framework that will facilitate the use of products and elements of modern biotechnology, including Living Modified Organisms (LMOs) in the Solomon Islands.
2. Develop and establish mechanisms that will safeguard the environment of the Solomon Islands, the health of its people and their cultural, spiritual and traditional values and knowledge from the potential risks of modern biotechnology.
3. To enhance the institutional capacities of appropriate agencies for the assessment of risks associated with the handling, use and management of genetically modified organisms, in particular LMOs.

4. Establishment and maintenance of appropriate mechanisms and strategies to assess and manage risk to ensure the protection of plant, animal or human health, genetic resources and the environment.
5. Develop an information management system for the promotion and facilitation of public awareness, public education and access to relevant information related to the development and use of modern biotechnology.
6. Develop a Biosafety Clearing House node for the Solomon Islands to be provided for under a legal framework for biosafety.
7. Encourage research and capacity building on modern biotechnology to harness its potential for food processes and pharmaceuticals which will contribute to the health, well-being and environment of Solomon Islands.
8. To enhance proper facilitation and coordination among relevant sectors.

#### **4.12 Expected Outcomes**

1. A comprehensive and effective legal framework to address Biosafety issues in the country by 2016
2. Solomon Islands Biodiversity and Genetic Resources are protected from the harmful effect of GMOs.
3. Mechanisms and Well defined processes in place for risk assessments, analysis and management procedures to protect the environment, human health, cultural and traditional values and knowledge from the potential risks of modern biotechnology
4. Institutional responsibilities are defined and capacities enhanced to address Biosafety issues in the Solomon Islands

5. People are aware of the potential negative impacts of GMOs and LMOs and also that appropriate research is encouraged to realize the benefits to agriculture and food security of the country.

## **4.2 National and Sectoral Policies Related to Biosafety**

The policy context for Biosafety in the Solomon Islands has sufficient provision for the further actions on Biosafety such as the development of a regulatory framework for Biosafety and other initiatives. As reflected in this section, many of the national policies, sectoral policies and programs in the environment, agriculture, fisheries and private sector provide the impetus to address Biosafety in the country.

### **4.21 The NCRA Policy 2010**

The National Coalition for Rural Advancement Government recognized that the Solomon Islands is rich in natural resource endowments and as such its economic future depends critically on its ability to achieve sustainable economic growth within an appropriate framework of environmental protection and conservation. The Solomon Islands NCRA Government recognizes the importance to review the present National Environment Policy so as to accommodate both the sector and cross-sector policies for development.

The policy goals significant to environment protection and management as it support subsistence and formal economy of the country. Thus ensure that environmental issues are integrated into other sectors such as development planning, agriculture, fisheries, mining, tourism, education and health so that there is adequate understanding about integrated nature of environmental issues.

In achieving agriculture reform, the NCRA Policy 5.1.2 stated it will set up an Agricultural Reform and Food Security Commission to oversee the implementation and

monitoring of all agriculture related policies and reform program. A critical aspect of such a reform is the upgrading of Quarantine services and capacity which is of essential importance to biosafety initiatives. Other policy goals include the creation of new and expanded opportunities in small-scale agriculture, artisanal fisheries, tourism and forestry sectors. Provide assistance to rehabilitate cocoa, coconut, honey, tea and local fruit species through use of subsidy funding for specific interventions that will directly improve people's livelihood in both subsistence and income streams. Improve domestic and export marketing infrastructure (outlets, storage, accessibility, facilities, information and management) for agricultural products produced by smallholder farmers; areas of potential niche market suitability – coconut, honey, tea and local fruits. Another important policy goal is developing marketing infrastructure that includes phytosanitary standards and market access to niche markets. It also further includes the revival of the Solomon Islands National Agriculture Research Institute and revitalizes field research capacity. The institute will play a pivotal role in Biosafety capacity development.

#### **4.22 Medium Term Development Strategy 2008-2012**

The Medium Term Development Strategy 2008-2012 (MTDS) is the first national strategy that incorporates environmental protection and management in its goals and objectives. The strategy sets a national goal to ensure the sustainable utilisation and conservation of natural resources, protection of the environment and successful adaptation to climate change.<sup>25</sup> One of the objectives is to designate a focal point for all international, sub-regional conventions, treaties and protocols relating to environment, conservation and climate change.<sup>26</sup> Another important objective is the integration of national issues in a holistic way so as to adapt to climate change, halt deterioration of ecosystems, restore damaged ecosystems and ensure their survival in the long term.<sup>27</sup> Its major strategies include; (i) protection, restoration and enhancement of the quality of

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<sup>25</sup> Solomon Islands Government, 'Medium Term Development Strategy 2008-2010' (Ministry of Planning and Aid Coordination 2008).

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

the environment; (ii) strengthen institutional and technical capacity: and (iii) ensure effective mitigation and adaptation to climate change.<sup>28</sup> Strategy (iii) underlies the need for tangible actions on adaptation to climate change.

#### **4.23 The Agriculture and Livestock Sector Policy 2009-2014**

This policy document has a section on Plant and Animal Health Protection, Quarantine Services and Biosecurity. The major policy objectives include;

1. Fast track the legislation of the Biosecurity Bill 2012
2. Review the current Quarantine Services and Regulations
3. Improve border protection strategies, such as passenger clearance at point of entry and clearance of imported plant and animal produce to ensure freedom from exotic pests, diseases and to destroy quarantine risk material
4. Improve capacity to monitor and control pests and animal disease through training and equipment
5. Cooperate with neighboring countries through bilateral, regional and international arrangements on pest and disease prevention/protection whenever necessary.
6. Improve phytosanitary and plant inspectorate services to prevent both the spread of existing plant diseases and introduction of new pests and diseases through importation of plant materials and animal products
7. **Develop import protocol using recognizes risk analysis methods and issue permits containing specifications to meet the national and international regulations**
8. Promote veterinary services and establish an effective regulation and control system for import and marketing of veterinary products

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<sup>28</sup> *ibid.*

9. Strengthen the field-reporting system and establish an epidemiology unit for monitoring and surveillance
10. Set up inspection facilities, build post-entry quarantine house. Such facilities will improve the ability/capacity to import improved crop varieties, increase food security and control potential pest and diseases
11. Design systems for operation of facilities such as the quarantine greenhouse to follow a user-pay approach, but with rooms for rebates for small farmer groups. Another approach can be “build operate and transfer” and hence private/public partnership can be sought for such ventures
12. *Develop means to control introduction of GMOs*
13. Prevent and control human diseases transmitted by food of animal origin. Measures to be taken will include inspection of food premises, products quality control, abattoir, hygiene, meat inspection, prevention and control of chemical residues in food including veterinary drug residues and inspection of food imports and exports
14. Develop and maintain Solomon Islands capacity to meet overseas Sanitary and Phytosanitary requirements and conform to regional and international market standards and trade agreement requirements

#### 4.24 The Agriculture Policy 2010-2015

The policy matrix for Agriculture 2010-2015 provides the vision to enhance and promote a sustainable agriculture and rural development in the Solomon Islands for economic stability, food sovereignty, and improve rural livelihood.<sup>29</sup> Its mission is to promote, improve, and lead agriculture development in Solomon Islands to a profitable and **environmentally sustainable future** by being the premier provider of information, research, extension, education, regulatory, and other services to improve the agriculture sector.<sup>30</sup> A significant amount policy focus areas are of paramount importance to this Biosafety framework;

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<sup>29</sup> Solomon Islands Government, ‘Agriculture Policy 2010-2015’ (Ministry of Agriculture and Livestock)

<sup>30</sup> Ibid.

## 1. Food Safety and Quality Improvement

This will include proper assessment of GM foods/ seeds, testing for Pesticide residues on vegetables in the market and training farmers on safe and proper- use of pesticides and regulations of chemicals. This will ensure that GM free certified goods entering the country, the level of pesticide residues are crops monitored and that farmers trained in the safe use of pesticides.

2. Destruction of agricultural products by pests such as Giant African snail, Asian Honey Bee, Fruit flies, Coconut Leaf miner, etc. are contained or eradicated by control measures based on cooperation with neighbors and research organizations.

The implementation of activities for this policy may include review of pesticides regulations, monitor pesticides sale and use, Monitor pesticides residues in market produce. Where feasible relevant NGOs and private sector will participate in research and the development activities, particularly in the testing of agrochemicals, GMOs, and development of appropriate technologies.

3. Research into exotic crops, farming systems, and pests are in place and people are provided with information to help them plan their farming activities.

This will include providing advisory service to farmers and strengthen information and documentation services, information management and technology, publications and dissemination of research information and networking in information services with internal and external institutions.

## 4. Policy, Development plan and strategies for Animal Genetic Resources

Develop and commence implementation of development and conservation policy and plan for Animal Genetic Resources of the Solomon Islands. Animal genetic resources in the Solomon Islands are an important resource which although are significant in addressing issues of food security and malnutrition have been over looked for many years.

5. Protect Solomon Islands Flora and Fauna from exotic pests of plants and animals. Contain and eradicate any pests using management methods based on bilateral, technical, and economic cooperation with neighboring countries and regional institutions, and organizations.

An important component of this policy is the enactment of a harmonized Biosecurity Bill to replace existing Quarantine Act and Regulation. There is also the need to improve required facilities such as X-Ray machines at airport, provision and strengthening of border control services and facilities at borders to boost effective and efficient implementation of services. Also important is the improvement of treatment, incineration facilities to minimize introduction of pests of plants and animals.

There are also initiatives to strengthen import and export inspectorate capacity, facilitate safe trade by regulating export of plant/plant products, animal/animal products so that it meets export requirements. This is in recognition of the importance of market access and thus the establishment of a market access committee. Also important is the need to facilitate safe trade by regulating import of plant/plant products, animal/animal products to meet import requirements.

Various programs and activities that are critical to Biosecurity with potential implication for Biosafety include;



- Strengthen Surveillance and Monitoring system, Pest Identification and Certification Capacity (Updated Pest List Database (PLD). Threats of new invasive species from other countries (Cocoa Pod Borer on Bougainville)
- Development of an eradication program for Cocoa Pod Borer, Giant African Snail, Yellow Crazy Ants, Asian Honey Bees, Fruit Flies, Coconut Leaf Miners
- Develop and strengthen the capacity of quarantine to meet International Standards and Requirements of WTO and SPS
- Development of contingency plan for Bird Flu
- Provision of required infrastructures at identified borders - vulnerability to pest and diseases incursions and quarantine services delivery at the border
- Promote information dissemination both National and International data - Notification and Publication of information materials
- Carry out pre-export inspection at export premises to minimize introduction of pests - Increase in request to import diverse products from new exporters overseas

#### 4.25 The National Biodiversity Strategy and Action Plan (NBSAP)

The National Biodiversity Strategic Action Plan (NBSAP) developed in 2009 provides the policy platform to address biodiversity protection and management in the Solomon Islands.<sup>31</sup> Section 5.6, **theme 4 focus specifically on the Management of invasive species and genetically modified organisms.** It recognizes that invasive alien and genetically modified species are becoming a threat to the environment. Alien species have been brought into the country for agriculture, forestry, ornamental purposes and various other reasons. Genetically modified species or organisms have not been well documented but is potentially being introduced in the country. The lack of appropriate regulation under current Quarantines Act, insufficient information and limited awareness on invasive species and bio-safety exacerbate poor control of foreign species entering

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<sup>31</sup> Solomon Islands Government, 'National Biodiversity Strategic Action Plan ' (Ministry of Environment, Conservation and Meteorology 2009).(<http://www.cbd.int/doc/world/sb/sb-nbsap-01-en.pdf> )

the country. It realized the need to establish a management framework and relevant regulations in place.

The NBSAP for the Solomon Islands strongly implicated the significance of Biosafety to the Solomon Islands as follows;

**Strategy goal:** To ensure biodiversity of the Solomon Islands are protected from introduced and modified species through legislation, monitoring, research and awareness.

**Objective 1:** To strengthen appropriate legislations (eg. Quarantine, Fisheries) to include protection of native species from introduced invasive/GMOs

**Actions:**

- Quarantine Act and other relevant legislation are reviewed and improved to protect against negative impacts of invasive species and GMOs
- Enact provincial ordinances to protect different species

**Objective 2:** Develop and implement national invasive species management strategy.

**Actions:**

- Update the list of invasive species to include other emerging invasive species
- Design management specification for eradication of invasive species

**Objective 3: Complete and implement the National Bio-safety Protocol Strategy**

**Actions:**

43. Implement the national Bio- safety protocol strategy
44. Develop a national legislation to cover GMO issues

**Objective 4:** Strengthen enforcement and monitoring capacity of responsible agencies (public and private sectors)

The Solomon Island NBSAP was emphatic on the need to strengthen existing legal frameworks in particular the quarantine laws, the completion of the National Biosafety Framework and strengthening enforcement and monitoring capacities.

#### **4.26 Fisheries and Marine Resources Sector Policy**

The Government's Medium Term Development Strategy 2008 overall fisheries and marine resources sectoral objective is;

*“The development and sustainable utilization of sea and marine resources to benefit and contribute to the wellbeing of Solomon Islanders and to ensure that fisheries and marine resources are managed in a sustainable manner for the long-term benefit of the people of Solomon Islands.”<sup>32</sup>*

The strategies identified to achieve this include:

- Improvement of community fisheries management
- promotion of private sector development in the fisheries sector
- Sustainable management of commercial fisheries.

The mission and focus of the Ministry of Fisheries and Marine Resources is outlined in their Strategic Plan 2008-2013 states that their mission is;

*“To ensure the people of the Solomon Islands receive optimum long-term benefits from ecologically sustainable fisheries.”<sup>33</sup>*

The fisheries strategic plan realizes the need to develop sectors such as aquaculture and inshore fisheries being mindful of the need to develop sustainable fisheries. Two critical approaches for Biosafety in the strategic plan are the ecosystem approach management and the application of the precautionary principle.

#### **1. Ecosystem Approach**

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<sup>32</sup> MTDS

<sup>33</sup> Fisheries strategy

“The overarching principles of ecosystem-based management of fisheries, aim to ensure that, despite variability, uncertainty and likely natural changes in the ecosystem, the capacity of the aquatic ecosystems to produce food, revenues, employment and, more generally, other essential services and livelihoods, is maintained indefinitely for the benefit of the present and future generations, to cater both for human as well as ecosystem well-being. This implies conservation of ecosystem structures, processes and interactions through sustainable use. This implies consideration of a range of frequently conflicting objectives and the needed consensus may not be achievable without equitable distribution of benefits”.<sup>34</sup>

## 2. Precautionary Approach

“A set of agreed cost-effective measures and actions, including future courses of action, which ensures prudent foresight, reduces or avoids risk to the resource, the environment, and the people, to the extent possible, taking explicitly into account existing uncertainties and the potential consequences of being wrong”.<sup>35</sup>

## 5.0 Current Legislative Frameworks Related to Biosafety

The Solomon Islands currently does not have in place a specific legislation for Biosafety issues, although certain potential exist in the current statutes. The overarching legislation for environment management in the country is the *Environment Act 1998*, which adopted the system in the United States whereby developments with likely adverse environmental impacts require development consent before they proceed.<sup>36</sup>

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<sup>34</sup> FAO (1996), *Precautionary approach to capture fisheries and species introductions. FAO Technical Guidelines for Responsible Fisheries. No 2. 54p*

<sup>35</sup> Garcia S.M. (1996). *The precautionary approach to fisheries and its implications for fishery research, technology and management: An updated review. FAO Fish. Tech. Paper, 350.2: 1-76*

<sup>36</sup> *The Environment Act 1998* (Solomon Islands) .

The provision for Environment Impact Assessment (EIA) could be adopted in term of risk assessment processes of GMOs. Before the enactment of the Protected Areas Act 2010, there was no national legislation dealing with the, protection of endangered species or conservation of biodiversity. The earliest efforts and recognition is in the National Environment Management Strategy (NEMS) which listed biodiversity as a priority area.<sup>37</sup> The Solomon Islands Second National report to the Convention on Biological Diversity also recommended the need for legislation on biodiversity.<sup>38</sup> The environmental legal framework in Solomon Islands centred on the Environment Act 1998, Wildlife Protection and Management Act 1998 and other legislations such as the Fisheries Act (1998) and provincial ordinances. These legislations together with the quarantine and Biosecurity legislation provide the basis to address Biosafety in the country.

**The Environment Act 1998** made provisions for the protection and conservation of the environment, the establishment of the Environment and Conservation Division and the Environment Advisory Committee.<sup>39</sup> Although it focuses on the Environment impact assessment and pollution control, it provides the opportunity that could include risk assessment for GMOs and other Biosafety related measures.<sup>40</sup> This includes the preparation and process of environmental impact assessment (EIA) (s19).<sup>41</sup>

**The Wildlife Management and Protection Act 1998** is developed to regulate the export of listed species of wildlife, and thereby enable Solomon Islands to comply with the Convention on International Trade in Endangered Species of Flora and Fauna (CITES).<sup>42</sup> Its emphasis on protection of threatened species and requirement for permit

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<sup>37</sup> Secreteriate of the Pacific Regional Environmental Program, 'National Environment Management Strategy - Solomon Islands' (Secreteriate of the Pacific Regional Environmental Program 1993) 45-47.

<sup>38</sup> Solomon Island Government, 'Second National Report to the UNCBD' (Ministry of Environment and Conservation 2001)

<sup>39</sup> *The Environment Act 1998* (Solomon Islands) part 2 s 5-12.

<sup>40</sup> Ibid.

<sup>41</sup> Ibid s 13

<sup>42</sup> *The Wildlife Protection and Management Act 1998* (Solomon Islands) s 3

to export of flora and fauna is important for biosafety. Its current implementation arrangement without scientific data and studies need to be addressed.

***Fisheries Act 1998*** provides the legal basis for a comprehensive and responsive national fisheries management regime.<sup>43</sup> It promotes a precautionary approach to fisheries management and encourages the long-term sustainable management of fish stocks (FA ss3- 4).<sup>44</sup> While it makes no explicit mention of marine biodiversity, it has a range of provisions capable of advancing the conservation of Solomon Islands' significant marine resources through marine protected areas.<sup>45</sup> This has significant implications for Biosafety in the country.

**Environmental Health Act 1980-** The Minister of Health is responsible for administration of environmental health services. The Minister may delegate this authority to the Provincial Government and the Honiara City Council which are designated as Enforcement Authority. There is provision in the Act that if the Enforcement Authorities do not perform their duties under the Act, then the Minister can arrange to have their functions carried out by others, and require the Enforcement Authority to reimburse the Ministry for the cost of doing so. The Enforcement Authority is given power to make its own by-laws under the Act to facilitate the efficient operation of environmental health services. The Enforcement Authority is required by the Act to carry out a program of health education and publicity in accordance with directions given by the Minister.

There are a range of defenses available to persons prosecuted under the Act which will be critical to Biosafety in the country. For example a defense to a charge of accumulating or deposit of offensive matter for the defendant to prove that the accumulation or deposit was necessary for the carrying on of his or her business, that it has not been accumulated for longer than was necessary to carry out the business, and that the "best practicable means" have been taken to prevent the accumulation being

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<sup>43</sup> *Fisheries Act 1998* (Solomon Islands)

<sup>44</sup> *Ibid* s3-4

<sup>45</sup> *Ibid*

prejudicial to the health of people in the neighborhood. Similarly it is a defense against contravention of the Regulations relating to dust, fume, and smoke. When a company is charged under the Act or its Regulations, the company secretary, manager, or company director may be summoned before a court and held liable for the company's contravention and its consequences. This can be applied to biosafety related issues.

***The Consumer Protection Act (1995)***- Under the Consumer Protection Act, the Minister of Commerce, Industries Labour and Immigration can regulate "product safety or quality standards for any specified kind of goods".<sup>46</sup> Measures adopted under this provision may include requirements relating to performance, composition, design, packaging, marking and labelling, processing method, and testing.<sup>47</sup> Although no technical regulations or conformity assessment procedures have been adopted under this provision it is a critical provision that the Biosafety law need to utilise.

***Provincial Government Act 1997*** -The Provincial legislative authority derives from a combination this act and the accompanying devolution orders.<sup>48</sup> The Devolution Orders made in respect of each province give them legislative competence over a range of matters of direct relevance to natural resource management.<sup>49</sup> Schedule 4 lists a number of areas of legitimate provincial legislative authority and biodiversity, environmental protection and natural resource management are included in the list.<sup>50</sup>

***The Protected Areas Act 2010*** - The *Protected Area Act 2010* is developed with the objective of establishing protected areas to conserve biological diversity.<sup>51</sup> To achieve

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<sup>46</sup> Section 12(1), Consumer Protection Act, Chapter 63 of the Laws of Solomon Islands, 16 October 1995.

<sup>47</sup> Section 12(2), Consumer Protection Act.

<sup>48</sup> *Provincial Government Act 1997* (Solomon Islands) s 33

<sup>49</sup> *ibid*

<sup>50</sup> *Ibid* sch 4

<sup>51</sup> *The Protected Area Act 2010* (Solomon Islands) s 3 objective are;

establish a system of protected areas where special measures need to be taken to conserve biological diversity , develop guidelines for selection, establishment and management of protected areas , regulate and management biological resources important for the conservation of biological diversity within or outside protected areas , promote the protection of ecosystems, natural habitats and maintenance of viable population for species in natural surroundings. promote environmentally sound and sustainable development in areas adjacent to

these, the Act provided for the establishment of a Protected Areas Advisory Committee (PAAC) and made provisions for declaration of protected areas by the Minister of Environment from the advice of the Director of environment.<sup>52</sup> As a means to finance biodiversity protection, the Act provides for a protected area trust fund to be also managed by PAAC.<sup>53</sup> The legislation then focused on the regulating research of biological diversity and bio-prospecting prohibiting biodiversity research unless a permit is issued by PAAC.<sup>54</sup> This permit process of bio-prospecting is important to ensure that research undertaken on the country's biological diversity is managed. This is a critical component in relation to Biosafety issues in terms of regulatory oversight if the product or process is based on modern biotechnology.

***Agricultural Quarantine Act 1982*** - The Quarantine Act 1982 provide for preventing the introduction of disease into Solomon Islands through the importation or landing of animals, plants and other things and preventing the introduction of pests and undesirable plants; for requiring vessels and aircrafts to give notice of their arrival in Solomon Islands; and for connected purposes. This Act grants regulation-making powers to the Minister in respect of the introduction or importation of plants and animals and substances or other material that may be the carrier of plant or animal pests and diseases. The Act further provides for the appointment of inspectors and defines their powers and prescribes offences. An Order of the Minister may prohibit or regulate the importation or landing of: (a) animals and animal products; (b) plants; (c) earth; and (d) other things by, or by means of, which it appears to the Minister that any disease or pest might be introduced. The First Schedule sets out the matters which may be dealt with by Order made under this Act.

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protected areas and rehabilitate and restore degraded ecosystems and promote the recovery of threatened species through development for management plans and strategies

<sup>52</sup> Ibid s 4-9 s 10-12.

<sup>53</sup> Ibid s 13-15.

<sup>54</sup> Ibid s16-18.



### *Bio-Security Bill 2012*

The bio-security bill provides the best platform to address Biosafety issues in the absence of a legal framework to address Genetically Modified Organisms. The bill which is currently under consultation has a lot of opportunities to address Biosafety in the country. Its major objectives are to;

- (a) to control the import and export of regulated pests and diseases (Parts 2, 3, 4 and 5);
- (b) to provide powers to control outbreaks of regulated pests and disease within Solomon Islands (Parts 8 and 9);
- (c) to provide Biosecurity functions of the Government;
- (d) to provide administrative matters such as the designation of a Director of Biosecurity and biosecurity officers for Solomon Islands. These will be existing public officers in the Ministry of Agriculture and Livestock. The Director will have the functions set out in clause 75. The powers of Biosecurity officers are set out in Parts 6 and 7. Parts 11, 12 and 13 contain miscellaneous and legal provisions, including enforcement procedures.

The proposed Bill defined “Biosecurity” as the control of the movement of plants and animals and their products in order to prevent the establishment and spread of animal and plant pests and diseases that can harm human health and the agricultural economy of a country. It involves the control of agricultural and food imports and exports, the establishment of a quarantine regime for animals and plants and the control of the movement of animals and plants within the country.

This Bill has been drafted with the assistance of the Secretariat of the Pacific Community, as part of a project that aims to modernize and harmonize biosecurity

legislation across the region and bring it into line with international obligations of participating countries. It is intended to replace the existing Acts and subsidiary legislation governing animal and plant imports and quarantine. It will bring together Acts relating to both animals and plants, and provide Solomon Islands with a legislative foundation for action to protect it from the introduction of animal and plant pests and diseases. The Bill if enacted will also enable the country to comply with its obligations to ensure that animal and plant pests or diseases are not exported from Solomon Islands into neighboring countries. A key definition in clause 2 is that of 'regulated article' which includes animals, plants and their products and other articles that pose a biosecurity risk. Under clause 12(6), incoming regulated articles must not be removed from a biosecurity holding area without biosecurity import clearance, except for having biosecurity measures applied to them. Certain categories of outgoing regulated articles also require biosecurity export clearance – clause 34.

In its current form the biosecurity bill seeks to fulfil the following functions;

- to protect Solomon Islands against the entry of regulated pests and diseases affecting animals, plants, human beings and the environment;
- to carry out surveillance and monitoring of pests and diseases in Solomon Islands and assess the status of regulated pests and diseases;
- to prevent the establishment and spread of regulated pests and diseases and the release of organisms that might adversely affect animals, plants, human beings and the environment in Solomon Islands;
- to eradicate, contain or control the movement of regulated pests and diseases that are already present in Solomon Islands;
- to prevent the introduction and spread of regulated pests and diseases not already present in Solomon Islands;
- to facilitate the safe importation of animals and plants and their products, and related equipment and technology;
- to facilitate the export of animals and plants and their products in accordance with the biosecurity requirements of the receiving countries;

- to facilitate international cooperation to prevent the spread of pests and diseases affecting plants, animals, human beings and the environment.

#### The Roles and Functions Quarantine & Biosecurity Division

- To prevent the likely introduction of unwanted pests, diseases and invasive species into the country.
- To maintain a safe, high quality food, plant, plant products, animal, animal products (imports/exports) through regular inspection and surveillance programs.
- Trade Facilitation in compliance to WTO Sanitary and Phytosanitary Standards (SPS.) requirements and in accordance with International Standards on animal, animal products, and plant, plant products and health requirements on import and export of Food and Food Products as related to trades.

The development of Biosafety legislation must utilise many of the provisions in the biosecurity act. It will be a complimentary legislation that will specifically look at Biosafety and use the overarching provision of the biosecurity in its implementation.

#### **Other legislations critical to Biosafety in the Solomon Islands**

1. The Pure Food Act 1996;
2. The Public Health Ordinance of 1970 (parts on food which have not been repealed so it becomes a regulation);
3. The Pure Food (Fish & Fishery Products) Regulation 2005;
4. The Draft Pure Food (Food Control) Regulation 2009 (yet to be gazetted);
5. Consumer Protection Act 1995 (for Product Recall);
6. Pesticides Regulations 1982 under the Safety at work Act 1982;
7. Poisons Act 1941;

## 6.0 Other Mechanisms Significant to the Biosafety Framework

### 6.1 Codex Alimentarius Commission

The Solomon Islands is also a Member of the Codex Alimentarius Commission and the World Trade Organization (WTO). The process requires as a result are critical in addressing food security and initiatives to enhance food security, including food safety and other international obligations. The potential for Biosafety to be considered is also important in this case. The Codex Contact Point is the Director of Environmental Health, Ministry of Health and Medical Services (MHMS). In terms of developments to improve the national food control system within the country an Integrated Food Policy (National Food Security, Food Safety & Nutrition Policy 2010-2015) was developed. Three ministries were involved and they are Ministry of Agriculture and Livestock, Ministry of Fisheries and Marine Resources and Ministry of Health & Medical Services. Agriculture, Fisheries and Nutrition have their respective Action Plans in place which will compliment the policy document. For the WTO, the Sanitary and Phytosanitary Standards Enquiry Point is the Director of Solomon Islands Agriculture Quarantine Services of MAL.

The MHMS is also the competent authority with responsibility for food safety in the Solomon Islands. Ministry of Health and Medical Services is responsible for ensuring that imported food meets the requirements of the Pure Food Act 1996 and the Environmental Health Act.<sup>55</sup> In addition, the MHMS has developed a National Nutrition and Healthy Lifestyle Plan 2007-2017 that needs to be well integrated with the National Food Security, Food Safety and Nutrition policy. The objectives of the National Nutrition and Healthy Lifestyle Plan are to reduce current and future NCDs and malnutrition through: (i) Nutrition & healthy lifestyle organization; (ii) A supportive national environment ;(iii) Strengthening community action; (iv) Improving individual skills and management of end-point disease; and (v) Monitoring, evaluation & surveillance.

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<sup>55</sup> Environmental Health Act, Chapter 99 of the Laws of Solomon Islands, 1 August 1980.

## 6.2 WTO Processes , Conformity Assessment Procedures and Standards

The Solomon Islands has limited institutional capacity to adopt and enforce technical regulations and conformity assessment procedures. It did not adopt legislation to implement the TBT Agreement, nor has it made any notifications under that Agreement. The preparation and notification to the WTO of an inventory of technical regulations and conformity assessment procedures would be a first step towards increasing transparency for traders and helping efforts to enhance consumer protection.

Solomon Islands have not submitted any notification on the implementation of the TBT Agreement.<sup>56</sup> Nor has it designated an entity responsible for answering enquiries about technical regulations, conformity assessment procedures, and standards.<sup>57</sup> WTO Members have not raised any concerns in the TBT Committee regarding measures by Solomon Islands, and Solomon Islands have not been involved in any WTO dispute related to the TBT Agreement.

Solomon Islands have not adopted any legislation to implement the TBT Agreement. Technical regulations and conformity assessment procedures may be embodied in statutes passed by Parliament, or in subsidiary legislation made by the Executive.<sup>58</sup> Under the Consumer Protection Act, the Minister of Commerce, Industries Labour and Immigration can regulate "product safety or quality standards for any specified kind of goods".<sup>59</sup> Measures adopted under this provision may include requirements relating to performance, composition, design, packaging, marking and labelling, processing method, and testing.<sup>60</sup> No technical regulations or conformity assessment procedures have been adopted under this provision. The authorities have prepared draft legislation to replace the Consumer Protection Act.

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<sup>56</sup> As required by Article 15.2 of the TBT Agreement.

<sup>57</sup> As required by Article 10.1 of the TBT Agreement.

<sup>58</sup> National Parliament of Solomon Islands (2007a).

<sup>59</sup> Section 12(1), Consumer Protection Act, Chapter 63 of the Laws of Solomon Islands, 16 October 1995.

<sup>60</sup> Section 12(2), Consumer Protection Act.

The Minister of Commerce, Industries Labour and Immigration may also make regulations on "methods of inspecting, verifying and stamping weights, measures, copies and models thereof, weighing instruments and measuring instruments, and of certifying such verification".<sup>61</sup> Such regulations are not yet in force in the country and the legislation governing the adoption of subsidiary legislation does not contemplate public comment or WTO notification of draft measures. Also there are no standard making bodies currently in the country.

## **7.0 The Biosafety Legal Framework**

### **7.1 The Approaches and Considerations for the Biosafety Legislation**

#### **1. The Rational and Principles**

Developing a biosafety law must provide the rationale of why the Solomon Islands need to address the potential threats from modern biotechnology. It should give value to the fact that the livelihood of about 85 percent of the country that lives in rural communities are under threat and that critical sectors vital to the socio-economic development are at risk. It should also realize that critical ecosystems that support the environment, natural resources and human population could be threatened.

The Biosafety law needs to adopt sound principles of law and environmental law. The principles should govern its operation, intent and interpretation. Any measures undertaken within the law should be within the broader context of sustainable development and importantly with respect to the principles realized under the UNCBD framework. Some of these principles include the pre-cautionary principle, inter-generational equity principle; polluter pays principle, access to information, and public participation. The precautionary principle, information, public participation and equity are

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<sup>61</sup> Section 15(1), Weights and Measures Act, Chapter 155 of the Laws of Solomon Islands, 1 December 1980.

invoked in the *Environment Act 1998* and are recognized internationally in terms of environment protection.<sup>62</sup>

## **2. Effective Implementing Bodies**

The implementation bodies or institutions established or empowered under the Biosafety legislation will play a vital role in its effectiveness. The Environment and Conservation Division obviously is likely to be mandated under the law to be the focal point. The role of the competent authorities is also equally critical to ensure that the law is effectively applied. It is important however that the law put emphasis on legal requirements for competent and accountable agencies to coordinate Biosafety issues. It is critical that powers vested on the division are not in conflict with roles in existing legislations.

New bodies will be established under the Biosafety legislation. The National Biosafety Committee for example will play an important role in providing advice to the focal point. Other subsidiary bodies that could provide scientific and technical backstopping for the competent authorities are also important. There will be provision for the role of important stakeholders and institutions such as private sector organizations, NGOs, community groups and other stakeholders. The fundamental issue is to ensure that establishing such bodies' compliment existing ones.

## **3. Significance of Science, Information and Research**

Science, accurate information and research is significant in the application of biosafety legislation for the Solomon Islands. The decision making process should be based on accurate information from research and scientific information. Thus the interpretation and application of the law and legal principles where necessary need to uphold the

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<sup>62</sup> *The Environment Act 1998* (Solomon Islands) s 6 (a-d).

need for scientific information to justify a cause of action. In particular the risk assessment and management processes and procedures.

The law will also provide a mandate for the focal point and also competent authorities to ensure that accurate and appropriate information is disseminated to the public. Thus it should provide for the establishment of information dissemination and data management mechanisms.

Research is a tool that must be encouraged under the biosafety legislation to ensure that the threats to both the environment and human population are realised. It is also important to harness the potential benefits of GMOs to certain localities in the Solomon Islands. The sectors such as agriculture and fisheries for example will require extensive research on both the negative and positive impact of LMOs. This will include research on agriculture crops that can produce better yield through the use of GMOs and fisheries in terms of aquaculture. This will provide supportive data for risk management in line with obligations of article 16 of the Cartagena Protocol on Biosafety.

#### **4. Promote Cooperation and Partnership**

The Biosafety legislation for the Solomon Islands will encourage cooperation and partnerships. Its structure, mechanisms and principles should foster an environment conducive for cooperation. This will ensure that a process exist where capacity constrains can be addressed with the leverage from respective stakeholders. Cooperation and partnerships will be important to create opportunities for the Solomon Islands due to its limited capacity and resources. These opportunities may include the transfer of technology and solutions, information sharing, lessons learned and general awareness. International partnerships will bring in significant new players and opportunities such as funding and technical resources.

#### **5. Utilize Existing Mechanisms and Bodies**

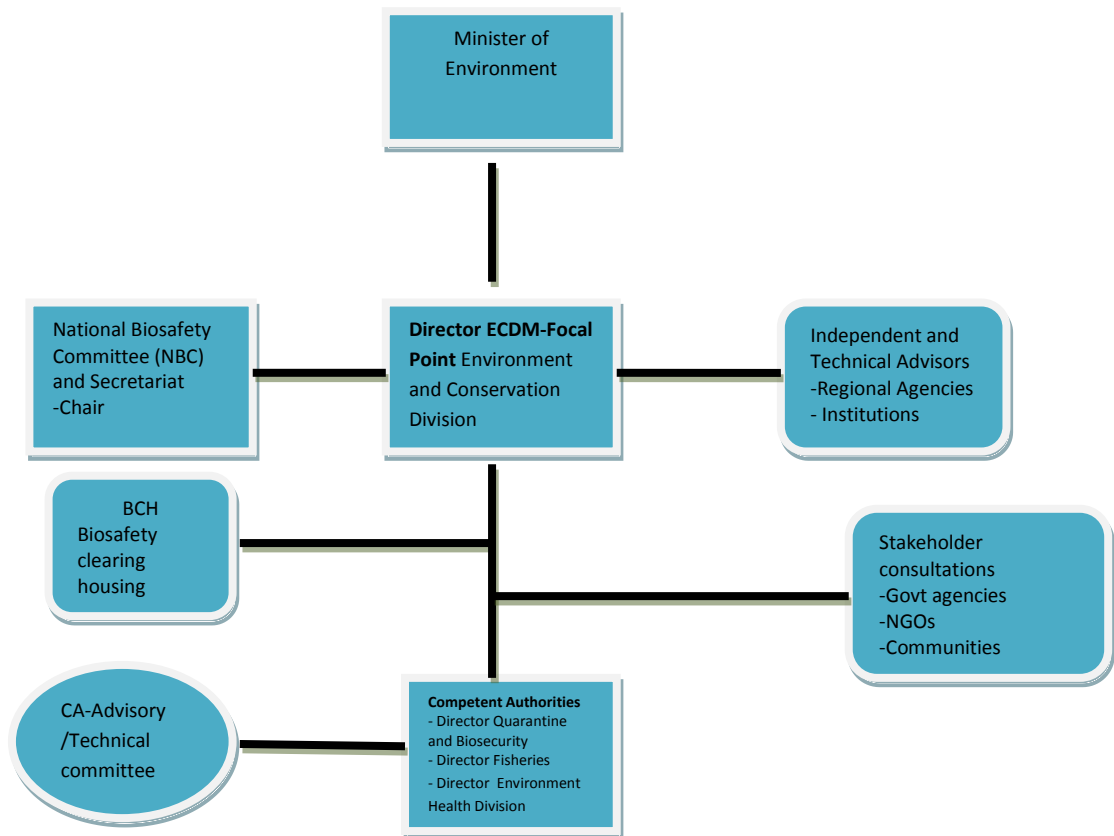


The implementation and enforcement mechanisms of the legislation will utilise existing bodies and institutions. In particular, the institutional arrangements for coordination, mainstreaming and planning between the focal point and the competent authorities. The institutional processes and technical capacity already in place will be integrated into the implementation arrangements. Furthermore, the provincial government's proximity and close relationship with the community make them the most appropriate partners for implementation and enforcement. The customary and traditional governance system as earlier discussed should be accommodated within the process although care should be taken to avoid any conflict between the law and the customary governance systems. Existing mechanisms within the broader environment law and management are vital to avoid the notion of re-inventing the wheel.

## **8.0 Administrative Structure for Biosafety**

### **8.1 Administrative Structure**

The administrative and coordination system will set the baseline for managing the entry and the uses of GMOs to reduce foreseeable risk associated to the environment and human health. The propose biosecurity bill will provide mechanisms that should facilitate the import of GMOs, however its scope is limited as it does not specifically refer to GM materials and pests. The absence of a focused regulatory and administrative system to validate imports free GMOs materials may result in non-deliberate introduction in the country. Taking into consideration the limited capacity and resources in the country the proposed administrative framework will adopt precautionary institutional approaches whilst providing avenues for internal research and biotechnology development. The following administration system is developed in consideration to the capacity issues and also to ensure that appropriate agencies can play a role in making decision on specific issues on biosafety. The following figure outlines the administration system for Biosafety in the Solomon Islands;



**Fig 1.0 the Administrative Structure**

## 8.2 The Focal Point – Ministry of Environment

The Director of the Environment and Conservation Division will be the Focal Point given its role in dealing in biodiversity matters relating to the UNCBD, its responsibilities include;

- Administration of the proposed Biosafety legislation
- Receiving notifications of meetings,
- Receiving of invitations to submit views on matters under discussion,

- This focal point is made in fulfilment of Article 19 of the protocol.
- Reports back to the secretariat on updates, reviews and achievements of national targets with respect to the implementation of the Cartagena protocol
- To acknowledge receipt of notification in according to Article 9
- To ensure that the permit application has accompanied by risk assessment report and risk management plan to the accepted protocols.
- To issue licence to applicants/proponents and keep upon the approval from the secretariat.
- To ensure sufficient money is available for the whole operation of the secretariat meetings by form of financial resources mobilisation or seeking alternative means.
- To coordinate and call the Secretariat (NBC) meetings
- To coordination the scientific and technical subcommittee of the Solomon island national biosafety framework.
- To develop and expand the national clearing house for regional and global networking.

### **8.3 Competent Authorities**

The competent authorities shall be responsible for the technical needs within their field of speciality or jurisdiction (ministries or departments). They will function within the rules and procedures of the department's administrative and regulatory systems. The technical officer appointed will be responsible for the dissemination of Biosafety rules and regulation in their respective ministries. The understanding is that risk assessment will be undertaken by the precautionary approach and on case-by-case scenario. The duties of the competent authorities can be divided into their departmental functional roles. The two major competent Authorities are the Ministry of Agriculture, through the Quarantine Division and the ministry of fisheries. These agencies will play a critical role to oversee the implementation of biosafety framework.

However there are other agencies will play in important role in research and risk assessments. These agencies include Ministry of Health, Forestry, Fisheries, Police and Border control, Customs, Consumer Affaires and the Provincial government.

The major functions of CA include;

- Provide advice to the secretariat on issue including best practices, regulatory system, risk assessment need and risk management plan of transgenic plants, livestock and transgenic food either for animal or human.
- To propose and develop specific risk assessment policy, risk management plan and monitoring system framework and guide risk management plan development of proposed transgenic plants and/or specimens intended to be imported.
- To provide advice and make decision with respect to the decision made by secretariat either on importation, development, field test, usage, handling, administration, labelling, monitoring and enforcement including public awareness of LMOs.
- To conduct or advice on research required on environmental issues related to LMOs with collaboration with other competent authorities and scientific institutions.
- To recommend any form of capacity building needs for administrative, risk assessment and human resources capacity development needs including biotechnology lab development needs to the secretariat and the higher authorities within his/her ministries.
- To work alongside or on behalf of the MECDM in giving acknowledgment and receipt.

#### **8.4 National Biosafety Committee (NBC)**

The National Biosafety Committee (NBC) provides advice to the focal point in the process of approving permits and other matters relating to Biosafety issues. The NBC shall constitute of appointed officers from the MECDM, Ministry of Agriculture and livestock, Ministry of Commerce, Ministry of Fisheries and Marine Resources, Ministry of Health and the Ministry of Finance. It should also include NGOs and Universities and technical Colleges employees. The appointment shall be made by the Minister for Environment. It is possible that existing bodies such as the Environment Advisory Committee could play this role or other existing appropriate committees.

The role of the NBC includes;

- To make decisions on all aspects of LMO, including approving and issuing of licences, legislative, policy and administrative need with respect to dealing, with genetically modified organism.
- To make decision on recommendation from the competent authorities and other related departments, NGOs and private companies.
- To ensure sufficient funding and sustainable finance mechanisms are in place for the continuity of the implementation of Cartagena Protocol to Biosafety.
- Approval of risk assessments and management framework or policies developed by the competent authorities or other institutions.
- To act as a national clearing house for the biosafety and the Cartagena Protocol
- To design and adopt rules for the secretariat meetings.
- To publish statements, reports and guidelines relating to the performance of its functions.
- To make decisions on any matters raised and discussed.

- To approve any prospective new regulatory approaches required to improve the management of transgenic organism before forwarded to the permanent secretary and his Minister for parliament consideration.

### **8.5 The Independent and Technical Committees**

The scientific and technical subcommittee shall constitute independent technical experts from specialised research institutions, private sector, NGOs or even individuals experts in various fields. The technical committee can provide independent views and assessment to the focal point, CA and NBC. They shall engage in independent transgenic risk assessment scientist nationally, regionally and globally. The technical committee can sources technical expertise from regional organisation such as SPC, USP, SPREP or other certified institutions undertake appropriate independent assessments. Their advice can be sought only when required or can act as third party in considerations of the risk assessment finding and decisions.

The role of the subcommittee shall include;

- Advise FP on technical and capacity need of the respective institutions.
- Advice and recommend administrative, reviews, legislative and policy.
- To build capacity and knowledge of the secretariat including training when required.
- Advice and involve in risk assessment and the development of risk management plan when requested.
- Supporting the focal points to implement its duties efficient and effectively.
- Undertake independent verifications and review when required.

## 9.0 Procedures for Handling Applications for Permit

The process and procedures for handling an application is summarised in this section. Many of these process and procedure will be further reviewed and developed in the formulation of a legal framework for biosafety.

### 9.1 Application Process

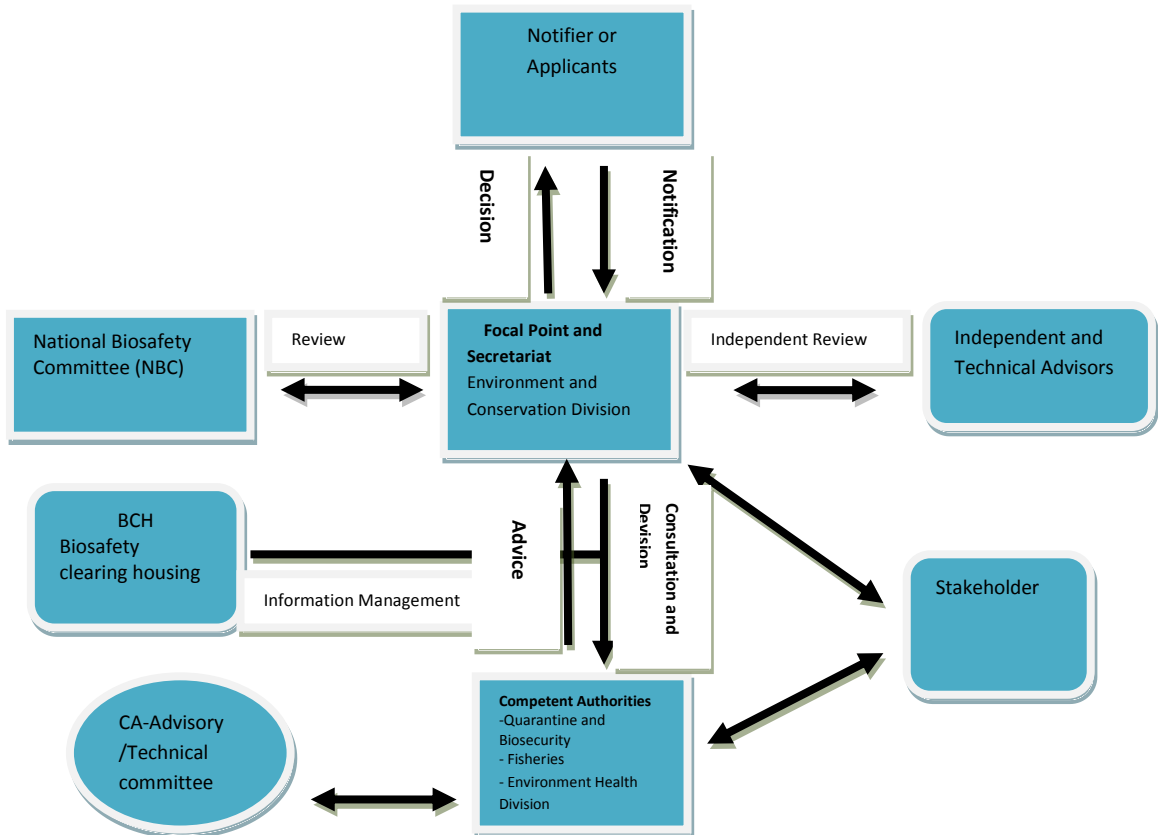


Fig. 2 the Application Process

## **9.2 Application for a Permit**

In making an import application or any other cases of GMOs, 4 copies of application (one original and 3 photocopy) along with risk assessment report and risk management plan will be forwarded to the focal point. There are four (4) categories of permits and the applicants/proponents to fill out the right permit form in accordance to the specific transgenic organism uses.

The categories are as follows:

1. Permit to work under containment (laboratories or greenhouses)
2. Permit to import for direct use as food or feed or for processing;
3. Permit to release into the environment (with or without condition).
4. Permit to field test/trial and release into the environment

## **9.3 Conditions for Permit**

The permit can only be issued by the Ministry of environment but with the approval from NBC. Licence can be only issued when the NBC satisfies that- a) the right permit has fully completed b) Evidence of feasibility study that has 1) a risk assessment report and 2) a risk management plan. The NBC has the power to refuse the permit if any of or element of the application and their associate report is fully or partially incomplete. The person who has been issued with a permit should comply with conditions specified in the permit.

Non-compliance with the conditions shall be the ground for revocation of the permit. It will remain revoked until such time that the specified conditions are fully complied with or a minimum period specified in the Biosafety regulation. In case of denial of an application, the applicant may appeal in writing to the NBC within a given time



mentioned in the denial letter or specified time that would be fixed in the Biosafety regulation. The appeal should clearly state all the facts and reasons to justify it and shall be referred back with application documents to the NBC for final decision.

### **1. Permit procedure for the GMOs under containment laboratories or greenhouses**

A transgenic organism research/containment permit is required for the purpose of research uses or any genetic construct organism for ornamental purposes. In these case the case-by-case and substantially equivalent principle can be applied. This means literatures and historical uses of the GMOs can be adopted in the risk assessment report and the risk management plan following international protocols. The basic standard receiving protocol is applied across where the MECDM receive the application and subjected to decision by the NBC. Upon receiving the application the MECDM will issue receipt and register the time/date it receives the application. It shall consult with the other competent authorities and other scientific bodies to make primary decision. Upon pre approval it shall forwarded to the secretariat/NBC. The secretariat/NBC has the power to accept or reject the application. If the secretariat approves the application it shall forwarded to the public inputs. A proposed time frame would be designed in the newly developed Solomon Island Biosafety Act and or Regulation. In any case other Act such as the Wildlife Act (1998), Protected Area Act (2010) with respect to the provision of bio prospecting research also applies. Depending on its nature the NBC would require on the ground risk assessment and risk management plan to be submitted with the permit.

### **2. Procedure for import for direct use of GMO food or feed or processing and import into containment for research and development**

In accordance with the CPB, a party may take decision on using GMOs as food or feed or processing under its domestic regulatory framework. In the Solomon Islands,

guidelines/manual on safety of GM food is yet to be formulated. In case of import of GMOs for food or feed or processing and import into containment for research and development, relevant institutions, organisations and stakeholders will be consulted. Public notifications and consultations for some proven or tested cases of non-harmful GMOs may be discretionary to the secretariat/NBC.

The secretariat shall make public notification and will invite comments (within the given time mentioned in the Rules/Acts to be developed) in case of import of GMOs or research and development and those considered to have significant public interest. Applications that will not warrant public notification by the secretariat will be handled without public notification and consultation.

Import, trans boundary movement and development of GMOs for processing, require clear declaration of type of processing, name of resulting food/feed/ingredient from processing and their potential use. There shall have no provision for any other use of those GMOs imported except for processing and under no circumstances will it be placed in the market for direct/household public consumption.

Those GMOs that are to be consumed directly as human food (e.g. GM papaya, soybean oil etc.), food ingredients derived from GMOs, animal feed should require a general release approval under the Biosafety Rules/Acts to be developed. For import/development of those GMOs and their placing on the market, the secretariat will give decisions taking into account of food analysis report, allergenicity and toxicity reports, provisions for standard labelling and placing in the market etc. issues those will be detailed in the Biosafety Rules/Acts to be framed.

### **3. Permit procedure for field test and/or general release into the environment**

The applicant/proponent shall follow the normal protocol for permit application (see figure1). The applicant/proponent shall fill the permit for field test/ or general release of transgenic organism into the environment. The permit application form must accompany with a risk assessment and management plan. A feasibility study is a must with respect to this application. The Decision for a permit shall be made on the procedure of the feasibility study. The process of conducting a feasibility study shall guide by other legal instruments and may also requires research permit from the Ministry of Education. The competent authorities will assistant the applicant/proponent to obtain a relevant research permit to conduct the risk assessment feasibility study. After completing a feasibility study the applicant/proponent can lodge the permit application together with risk assessment report and risk management plan to the MECDM or Ministry of Agriculture and Livestock or the Ministry of fisheries and Natural Resources.

Upon receiving the applications the MECDM shall issue letter of acknowledgement by issuing a receipt and record the date of receipt. The MECDM shall notify the technical committee for pre-assessment. After evaluation it shall be forwarded to the secretariat for final decision. The secretariat once receives the application with comments from the technical committee shall seek input from minister for finalisation of the decisions (Note public participation is part of the feasibility study). The secretariat will review the application, analysis and evaluate relevant information including the data generated in the feasibility study. It will further seek comments from risk assessments specialist nationally, regionally and globally using the Cartagena Clearing House. The whole procedure is expected to complete within the suggested time frame. This time frame will finalised in a newly developed within Biosafety legislations.

#### **9.4 Timeframe for Decision Making**

In accordance with the Protocol, the timeframe for processing application is summarised in the table below. It is anticipated that in the Solomon Islands, the timeframe under normal circumstances is to be the maximum unless a time extension became

necessary. It is also expected that many applications falling into low risk including contained research and development will be processed in much less time than noted in the table 2 below and such instances would be identified in the regulatory regime to be established in future.

**Table 1: Proposed timeframe for decision making**

<b>Activities</b>	<b>Time Frame</b>
<b>Acknowledgement of receipts</b>	90 days
<b>Communication of Decisions</b>	270 days after the date of acknowledgement
<b>Communicating to technical bodies</b>	90 days
<b>Communication to the secretariat</b>	180 days
<b>Information of decision to minister after receipt</b>	60 days
<b>Notify an applicant of a change in decision in regards to trans boundary movement based on assessments</b>	30 days
<b>Party of import repose to change decision on trans boundary movement</b>	90 days
<b>Notify of unintended trans boundary movement likely to have significant adverse effect</b>	immediate

## **10.0 Assessment Procedures**

### **10.1 Risk Assessment**

Risk assessment is the process of evaluation, identification of uncertainties and the likelihood of adverse effect(s)/event(s) imposed to the environment or the human health by LMOs or GMOs or their by product. Alternatively risk assessment comprises of hazard identification and characterisation of these risks and how to minimise these risk. The process of minimising the risk is through a risk management plan. With respect to

scientific uncertainty this shall not be interpreted as no risk as such the precautionary principle would apply by not allowing the process to continue and will be the bases for rejection of application.

The Ministry of Agriculture and Livestock can use the applicable EU standards for transgenic as the basis for developing transgenic plant risk assessment policy either as part of biosecurity or food security policy. Any transgenic organism intended for release into the environment require a feasibility study regardless of the purpose of use. As alluded certain risk assessment tests could not apply to the above framework such as the GMO food for animal or human.

The principle of substantially equivalent can be used to justify the risk assessment and the risk management plan need. Other studies e.g., toxicological study done at a qualified laboratory and accepted by the international community and subsequently approved by the NBC can also accepted without repeating the tests in country. It is in the best interest of the Solomon Island that a third party is used in this verification and environmental auditing.

With respect to the use of GMOs as foods or feeds the Solomon Islands will adhere and rely on the recent guidelines of Codex Alimentarius Commission for food as working principles for food safety assessment. Socio-economic issues in the risk assessment and management need to be considered prescribed in the proposed environmental risk assessments.

## **10.2 Risk Management and Communication**

The management of risks associated with the GMOs shall be the responsibility of the applicants/proponents. The risk management strategies shall depend on the finding of the feasibility study as the next step of risk assessment report. The management plan shall reflect the recommendation of the risk assessment taking into consideration other

related legislations, policies and management plans either nationally, provincially or locally/customary. Monitoring, measuring or evaluation of the implementation will be made against the management plan and the agreement made at the point of licence issues. Non compliances will be subjected to withdrawal of licence and shall compensate the Solomon Islands in accordance to proposed Biosafety legislation.

The legislation shall determine the process of payment as compensation and the process of eradication of the transgenic organism introduced under the given permit. It follows that strategies to manage the risk followed by monitoring and reviewing the risk mitigation measures will be stipulated by this legislation and relevant policy. In addition any GMO or products thereof shall be clearly identified and labelled. Such identification shall specify the relevant traits and characteristics in sufficient detail for purposes of traceability and animal consumption.

Risk communication is vital during the whole process-starting from feasibility study to the issuing of licence and during the risk management processes. The administrative system and the requirement state within the system ensure that interactive dialogue between the regulator and stakeholders are open, transparent. Transparent safety assessment and risk management decision within the framework sets the basis for the highly interactive process during the feasibility study and the engagement of thirty parties. This extends to the use of clearing house and engagement with other risk assessment and management experts.

### **11.0 Monitoring and Enforcement**

The development of monitoring and enforcement system shall be developed during the feasibility study and be submitted as part of the risk management plan. Monitoring method shall constitute of the use of surveillance and sample testing against the agreed standard and approved in the management plan. This will comply with provisions of the Biosafety legislations for implementation of this Biosafety framework. Subjected to the

condition stated in the monitoring protocol any default or breach of approved management protocol shall be subjected to enforcement and penalties that will be determined by the respective competent authorities upon the advice from NBC.

Monitoring and reporting shall be part of the management plan. The respective CA shall request data from the any organisations for the purpose of evaluation and the compliances with the risk management plan. The ministry may request an independent environmental auditor to verify claims made by the company and including the ministry and the system established under the Biosafety framework. The CA can engage lab test internally or with other regional and international biotechnology lab for verification purposes. The approach is to engage private/ research institute to undertake environmental auditing with the respective ministries where the group of GMOs falls under.

Monitoring will be undertaken to ensure;

- Risk management compliances and to gauge any unforeseeable harmful effects to the environment and the humans health that are not taken into account in the management plan;
- To collect data and use the findings and the analysis of the data as a basis to impose additional conditions or to maintain and renew conditions in the licence.
- To identify the fitness of transgenic organism in cultivars and the wild including the risk they pose to biological diversity such as invasiveness, the effect on endangered species, the effect on insect and diseases resistance, impact on soil microorganism and impact on human and animal health.
- With respect to field trials of transgenic organism and their release to the environment monitoring will ensure that this organism has an effect on the targeted intended purposes and does not escalated into other environmental, economic and cultural damages including human health.

- To detect any illegal transboundary movement of these transgenic organism or to detect in country transboundary movement including their by-products.
- To ensure that the transgenic organism is solely and purposefully used as targeted in the agreed licence.
- In this case in-house monitoring shall gauge the propagating rate (from one house hall to another or island to another) of any ornamental transgenic organism.

The following shall be considered as the baseline information is required for risk monitoring;

- (a) Background information of the transgenic organism
- (b) Background information of the receiving environment
- (c) The timeframe and frequency of data collection
- (d) Assignment of responsibilities (who is responsible for monitoring)
- (e) The relevant parameters to be monitored, as indicated by risk assessment
- (f) Place and area to be monitored
- (g) Approaches for sampling and analysis including detection methods
- (h) It shall be undertaken on a case-by-case basis
- (i) Take into account the characteristics of GMOs
- (J) Incorporate specific monitoring provisions focusing on adverse effects identified in the risk assessment and general surveillance for unanticipated adverse effects
- (k) The clarification of surveillance procedures, who will carry out monitoring and who is responsible for the compliances
- (l) Ensure that data are analysed and used to determine future risk management strategies
- (m) What method is device or agreed upon for communication with the competent authority and the NBC?



- (n) What mitigation measures will be used to hand either social ecological and economic damages?
- (o) What methods are in place for public information in terms of monitoring results?
- (p) What is the condition in place for risk management plans in case of accidental releases?
- (q) What is the standard auditing of the monitoring regime?

While choosing and developing the monitoring technique the following shall be also considered. The regulatory basis for monitoring and enforcement shall be developed by Biosafety legislation that warrant the change of condition set out in this framework. The developed legislation and policies shall have the mandate to make a regulatory regime for an effective monitoring and enforcement system. In these there will exist a provisions for enforcement that shall include punishment for any illegal activity involving transgenic organism in research, development, use in containment, field testing, production, release, import and export, handling, and transport of transgenic organism and so forth.

## **12.0 Public Awareness, Education and Participation**

Public awareness, education and participation are seen as essential tool for the promotion and facilitating the public concerns is the decision making and the uses of the GMOs in general. Basic information required are those information needed for safe transfer, handling and any other general uses of GMOs that deemed relevant to the national circumstances. The information is also needed for the public knowledge required for their involvement in the feasibility study of environmental risk assessment. This information shall be made available and readily accessible to the public domain to ensure that risk knowledge shall influence public decisions making concerning GMOs.

Information will be readily available to the public through Biosafety Clearing House. It shall be the responsibility of the focal point, the NBC and the competent authorities to make the information available to the public . Information shall also contain simple explanation to genetic engineering, biotechnology, and transgenic organism, their potential uses and what disadvantages that are associated with their uses. The NBC through the focal point shall guide the relevant ministries and institutions in producing procurement, pamphlet, TV programme, and local newspaper in disseminating this information to the public. Public awareness is important to ensure that;

- People are knowledgeable of the advantages and disadvantages of the use of transgenic organism including the environmental risk associated with including human health.
- Understand the risk public decision will be derived from a content knowledge.
- Understand the biosafety framework, the authorities, the system in place and to reduce misunderstanding and miscommunication of GMOs
- To promote transparency in decision making

### **13.0 Future Considerations and Implementation of Framework**

GMOs have the potential to bolster food security and bridge natural barrier in enhancing innovative means in potential areas such as bio-prospecting for pharmaceutical products which can enhance quality of human life and improves national income. However GMOs could also have adverse effects on the environment and human health. The following are the key priorities that Solomon Islands will seek to implement as a follow up to this framework;

1. By 2016 Develop a Biosafety legislation to facilitate many of the recommendation of this framework in particular the administration and procedures for GMOs
2. The Ministry of Environment initiate a consultative process with Ministry of Agriculture, Ministry of Fisheries and Ministry of Health that could lead to the

establishment of the National Biosafety Committee and the Biosafety Clearing House Mechanism.

3. Ministry of Environment liaise with the Cartagena Protocol Secretariat on how it strengthens its role as the focal point for GMOs. It should actively participate in initiatives available through the secretariat and other organisations.
4. Develop mechanisms for capacity building and resources mobilisation for activities on Biosafety.

The implementation framework in annex 3 provides possible timeframes in which expected outcomes will be implemented. It is developed in collaboration with the major Biosafety stakeholders through a consultative process. It is important to stress that this policy framework is developed with a broader context in mind to provide as much flexibility for future actions. It is in essence the starting point for the implementation of the biosafety issues in the Solomon Islands.

## Annex 1 – National Coordinating Committee Inception Review Meeting

Date: Thursday 7<sup>th</sup> October 2010 Time: 9am – 12pm Venue: MECM Conference Room

### Attendance

1. Chanel Iroi	MECDM (US)	<a href="mailto:c.iroi@met.gov.sb">c.iroi@met.gov.sb</a>
2. Jimi Saelea	MAL	<a href="mailto:j_saelea@yahoo.com">j_saelea@yahoo.com</a>
3. David Ho'ota	NPHL	<a href="mailto:dtenavao@gmail.com">dtenavao@gmail.com</a>
4. Alex Makini	SICHE/SNR	<a href="mailto:makinial@gmail.com">makinial@gmail.com</a>
5. Joan Pita Aihunu	SIDT/FSPI	<a href="mailto:joanne.pita@fspi.org.fj">joanne.pita@fspi.org.fj</a>
6. Severino Lausao	KGA	<a href="mailto:seviefms@hotmail.com">seviefms@hotmail.com</a>
7. Fred Pitasopa	MF&R	<a href="mailto:fpitisopa@hotmail.com">fpitisopa@hotmail.com</a>
8. Bobby Patterson	Env. Health Division	<a href="mailto:bpatterson@moh.gov.sb">bpatterson@moh.gov.sb</a>
9. Dr. Morgan Wairiu	PHCG	<a href="mailto:mwairiu@pacific-horizons-consulting.com">mwairiu@pacific-horizons-consulting.com</a>
10. Dr. Philip Tagini	PHCG	<a href="mailto:ptagini@pacific-horizons-consulting.com">ptagini@pacific-horizons-consulting.com</a>
11. Kellington Simeon	PHCG	<a href="mailto:ksimeon@pacific-horizons-consulting.com">ksimeon@pacific-horizons-consulting.com</a>

**Annex 2 - Participants at the NBF Final Review.**

**Draft Review Meeting, Wednesday 29<sup>th</sup> February 2012**

**Venue: CEMA Conference Room**

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1.	Joe Horokou	MECDM	23031
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15	Kellington Simon	PHCG	
16	Paul Roughan	PHCG	28642
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21	Josef Hurutarau	ECD, MECDM	jhurutarau@gmail.com

## Annex 3 – NBF Implementation Framework

*Vision “Solomon Islands Biological Diversity including their livelihood need, culture, spiritual, health, traditional values and international trade is protected from any adverse effect and influences of the uses of living modified organism”*

### Goal

**To strengthen the Solomon Island’s national action and capacity in ensuring an adequate level of capacity in the field of the safe transfer, handling and use of living modified organisms that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health.**

Objectives	Expected out comes	Indicators
<p><b>Objective 1</b> Formulation and Development of an appropriate administrative, regulatory and legislative framework that will facilitate the use of products and elements of modern biotechnology, including Living Modified Organisms (LMOs) in the Solomon Islands.</p>	<ul style="list-style-type: none"> <li>✓ A comprehensive and effective legal framework to address Biosafety issues in the country by 2016.</li> <li>✓ Adoption of the Biosafety framework including the relevant regulatory, monitoring and enforcements policies by the respective ministerial divisions and stake holders by 2016.</li> </ul>	<ul style="list-style-type: none"> <li>• Biosafety Legislation Bill drafted and passed by the Solomon Islands.</li> <li>• Divisional Policies designed and implemented by each divisions</li> <li>• The Solomon Island Government, NGOs and other stakeholders committed show financial support towards the completion of Biosafety legal need and divisional policies required.</li> <li>• Fully operational of the Biosafety framework and its associated mechanism.</li> </ul>

<p><b>Objective 2</b></p> <p>Develop and establish mechanisms that will safeguard the environment of the Solomon Islands, the health of its people and their cultural, spiritual and traditional values and knowledge from the potential risks of modern biotechnology.</p>	<p>The expected outcome for objective 2 is same for the expected outcome for objective one</p>	<p>The indicators for objective 2 is same for the indicator for objective one</p>
<p><b>Objective 3</b></p> <p>To enhance the institutional capacities of appropriate agencies for the assessment of risks associated with the handling, use and management of genetically modified organisms, in particular LMOs.</p>	<ul style="list-style-type: none"> <li>✓ Developing of Capacity building plan</li> <li>✓ Short course to develop for risk assessments and risk management plans</li> <li>✓ At least one staff (that is 3 or 4 staff in total) appointed for biosafety in each responsible Ministries by 2015</li> <li>✓ Develop risk assessment procurement for each institution by 2015</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building strategies developed</li> <li>• Number of short course delivered for GO, NGOs and stake holders by experienced GMO risk assessment experts.</li> <li>• Number of biosafety staff appointed by ministries</li> <li>• Money appropriated by national Government or NGOs towards the implementation of the BSF.</li> </ul>
<p><b>Objective 4</b></p> <p>Establishment and maintenance of appropriate mechanisms and strategies to assess and manage risk to ensure the protection of plant, animal or human health, genetic resources and the environment.</p>	<ul style="list-style-type: none"> <li>✓ Divisional policy developed on a case-by-case by relevant ministries taking into account the provision for monitoring system, management plans, capacity buildings and public awareness.</li> <li>✓ The full functioning of biosafety committee and the technical committee.</li> </ul>	<ul style="list-style-type: none"> <li>• Number of policies demonstrating the case-by-case</li> <li>• Number of BC and the subcommittee meetings</li> </ul>
<p><b>Objective5</b></p> <p>Develop an information management system for the promotion and facilitation of</p>	<ul style="list-style-type: none"> <li>✓ A website decided on to host the local information on biosafety development</li> </ul>	<ul style="list-style-type: none"> <li>• Website hosting the Solomon Island Biosafety information</li> <li>• Curriculum developed for the Solomon Island College of</li> </ul>



<p>public awareness, public education and access to relevant information related to the development and use of modern biotechnology.</p>	<p>✓ Biosafety introduced into the Environmental study delivered by Solomon Island College of higher Education by 2020 the latest.</p>	<p>Higher Education (SICHE)</p> <ul style="list-style-type: none"> <li>• Procurement and awareness materials produced and delivered to the public</li> </ul>
<p><b>Objective6</b></p> <p>Develop a Biosafety clearing house node for the Solomon Islands to be provided for under a legal framework for biosafety.</p>	<p>✓ Active participation with CPB clearing House, UNDP, UNEP, SPREP and SPC</p>	<ul style="list-style-type: none"> <li>• Full functioning of the BCH and the technical committee as a local Clearing House</li> </ul>
<p><b>Objective 7</b></p> <p>Encourage research and capacity building on modern biotechnology to harness its potential for food processes and pharmaceuticals which will contribute to the health, well-being and environment of Solomon Islands</p>	<p>✓ Develop partners with other regional and international biotechnology research group.</p> <p>✓ Facilitate 4 students to undertake postgraduate study in the field of biotechnology through the Ministry of National Training Unit (NTU) or other relevant bilateral arrangements</p> <p>✓ Facilitate international experts to build capacity to local public service officers and NGO officers</p>	<ul style="list-style-type: none"> <li>• Number of local, regional and international partners including the number of BCH associated with.</li> <li>• Number of specialized capacity building</li> <li>• Number of student undergoing Biotechnology study at postgraduate levels.</li> </ul>
<p><b>Objective 8</b></p> <p>To enhance proper facilitation and coordination among relevant sectors.</p>	<p>All the above expected outcomes serves as the expected outcome for objective 8</p>	<p>All the above indicators serves as the indicators for objective 8</p>

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