



DELEGACION PERMANENTE DEL ECUADOR  
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Señora Directora,

Como alcance a mi comunicación N. 4-2-9/2016, de 19 de enero 2016, cumplo con transmitirle con la presente la versión en idioma inglés del Informe sobre el Estado de Conservación de Galápagos, cuya versión en español fue enviado el 14 de enero con nota N. 4-2-4/2016.

Aprovecho esta oportunidad para reiterar, a usted señora Directora, las seguridades de mi consideración distinguida.

Atentamente,

Embajador Galo Mora Witt  
Representante Permanente del Ecuador ante la UNESCO



Sra. Mechtild Rössler  
Directora del Centro de Patrimonio Mundial de la UNESCO  
Casa de la UNESCO.-

# **CONSERVATION STATUS REPORT OF THE GALAPAGOS ARCHIPELAGO**

**Prepared for:**

**UNESCO NATURAL WORLD HERITAGE CENTRE**

This document about the conservation status of the Galapagos Archipelago was prepared by the Ecuadorian Environment Ministry through the Galapagos National Park Directorate

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## EXECUTIVE SUMMARY

The Ecuadorian Government has succeeded with their conservation efforts for the Galapagos World Heritage Site in 2014-15, taking into consideration national planning and the Committee's recommendations. The new Galapagos Special Law is an important highlight which outlines the structure of the Special Regimen and limits rights and activities that may threaten the health of the island ecosystems through a legal framework set by the Galapagos Government Council.

### **On Biosecurity:**

There is an ex-ante and ex-post system to control invasive species in Galapagos. The institutional strengthening can be observed through the creation of the Galapagos Invasive Species Trust Fund (FEIG, in Spanish) and of the Galapagos Biosecurity Agency, an institution with its own resources, autonomous administration and based in Galapagos. The Agency addresses the problem of pests in the ports and airports on mainland Ecuador. Additionally, the cargo fleet has been renewed and now operates with modern facilities providing for better cargo storage and improved quarantine control facilities. There are new environmental guidelines for marine traffic going to the Islands. The blueprints and designs have been defined for a new harbor for vessels going to Galapagos that includes a quarantine system. .

**On Tourism:** An analysis of tourism growth indicates a slight trend towards a reduction. This is the result of the Special Regime that applies in Galapagos and the initiatives of the Galapagos Government Council to control tourism growth and to manage its activities – which includes (i) a veto for mega hotel projects and a ban on further construction of new tourism infrastructure; (ii) the implementation of a plan to regulate tourism accommodation supply; (iii) a regulation for Tourism Accommodation has been approved; (iv) the Tourism Monitoring System was created as an information, research and follow-up platform; (v) the Galapagos Vivencial Fishery was recognized as a permitted tourism activities; and, (vi) all tourism vessels operating within the Galapagos Marine Reserve require an environmental license and management plan.

**On Governance:** There are new key tools for sustainable development, which include a new Development and Land Use Plan and a Protected Areas Management Plan which include overlapping criteria for the administration of the National Park and the Marine Reserve. The zoning of these protected areas is currently being updated

**On Solid Waste:** Most solid waste disposal sites have their environmental license and management plan in place. Only one of the sites is still working on their environmental license and management plan.

## **1.- INTRODUCTION**

This report presents information towards Decision 38 OM/7B.83, related to the Galapagos Islands, taken during the 38th Meeting of Convention Concerning the Protection of the World Cultural and Natural Heritage held in Doha - Qatar, 15 to 25 of June 2014.

This report details the activities and significative progress made by the Ecuadorian Government up to 2015 on the conservation and maintenance of the ecological integrity of the Galapagos Islands Natural Heritage Site. These actions are supported by the public policies as defined in the National and Sector Planning of the Ecuadorian Government.

There are four sections in the report: (1) Biosecurity; (2) Tourism; (3) Governance; and, (4) Solid waste. This last section was included to address the recommendations set by the Committee.

In each of the sections, we present both the analysis and the description of the actions and measures performed through different public policy strategies (e.g. programs or specific projects) in order to reach the expected objectives. Each section presents the objectives or the milestones reached; the norms that were prepared or were the basis for the drafting of each policy. In the vast majority of the cases, we present the reforms or the political backing needed to attain the sustainability of such policies.

The topics here presented, should be taken as adaptive strategies towards climatic vulnerability of the Galapagos Islands, the Biosecurity problem and invasive species, the preparation of the Islands towards a more modern system of cargo shipping, quarantine control and tourism as an economic activity.

Additionally, we also present information on the governance of Galapagos through new legal, technical and planning frameworks which are shaping the public and private management of the Islands within the Galapagos Special Regime framework.



## **2.- BIOSECURITY**

To provide Galapagos with a system that includes technical and legal input together with infrastructure and institutional backing, will allow a new cycle of invasive species control to begin. This work is framed within the policies to control the arrival of pests to Galapagos that could threaten the health of the fragile island ecosystems as well as climate change adaptive strategies.

Within the biosecurity strategy is important to highlight the work by the Ministry of Agriculture to promote sustainable agriculture that could satisfy the Islands' food requirements.

The plan seeks to replace the fresh produce brought to the Islands from mainland Ecuador as they constitute an important vector for the arrival of invasive species. Their quarantine inspection also requires significant investment of resources. This strategy helps reduce the spread of invasive species as farms appropriately managed keep invasive species at bay, avoiding further dispersal and introductions to the National Park.

Based on the premise that higher temperatures could give rise to new habitats where invasive species could spread, Ecuador has included in its climate adaptation policies clear guidelines for the prevention of this. This section details the activities of the new cargo transport system, the building of a new harbor to manage and inspect cargo, a new set of regulations for transport of cargo within the Marine Reserve and the strengthening of the institutions needed to ensure the sustainability of the public policies related to this matter.

### **2.1.- Galapagos Cargo Transport System:**

In the past, cargo was sorted by a system of bulk items under different categories (e.g. organic, general goods, machinery, etc.) which were placed in the storage area of the ship. The new cargo vessels incorporated to serve Galapagos present an ideal system using containers which enables the cargo to be sent in an organized and secure way. This system also has the backing of the shipping companies.

This change was possible due to the loss of three cargo vessels during 2014 and 2015<sup>1</sup> that regularly serviced the Islands. These three ships were used for transporting food, inorganic cargo and other products to the Islands.

Because of these losses, it was necessary to declare the cargo transport system in a state of emergency and to address this ongoing problem in a more definite way. This led to a partial replacement of the cargo fleet with vessels that provide better navigation safety and better handling of the products to be transported from Guayaquil to Galapagos.

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<sup>1</sup> The Floreana with a capacity of 2000 t sank in January 2015. The San Cristóbal with a capacity of con capacidad de 1300 t sank in November 2014. The Galapaface with a capacity of 1600 t sank in May 2014

The new cargo vessels have greater cargo storage and can transport containers which greatly facilitates the inspection and fumigation of the containers by the Galapagos Biosecurity Agency. The content of the containers can be better managed as a single item, reducing the risk of new invasive species arriving to Galapagos.

### 2.1.1.- Cargo vessels capacity

There is a substantial increase in the cargo and storage capacity of the current cargo fleet. It can transport now 18,000 t. The cargo service is privately owned and operated and each vessel is inspected under the quarantine system.

**Figure 1. The ship “Manizales” transporting cargo in containers.**



**Source:** Galapagos Government Council photographic archive, July 2015.

To date there are five vessels transporting cargo from Guayaquil to Galapagos. Over 85% of the cargo is transported in containers that were inspected by the Galapagos Biosecurity Agency. The remaining 15% of the cargo is transported as bulk items (see Table 1).

**Table 1. Cargo vessels transporting goods from Guayaquil to Galapagos.**

Name of the ship	Capacity	Company name	Use of containers
Manizales	7000 t	TEX Marítimo	Yes
Isla Bartolomé	3900 t	Transnave	Yes
Fusión	3000 t	Noé Shipping Agency	Yes
Galapagos	1500 t	Transnave	No
Angelina 1 <sup>A</sup>	2000 t	Opera B3 S.A.	No

A: This ship is currently in maintenance.

**Source:** Environmental Management Unit, GNPD, December 2015

Finally, the Ministry of Transport and Public Works (MTOPE, in Spanish) through the Undersecretary of Ports and Maritime and Fluvial Transport through the resolution MTOPE-SPTM-2015-0127-R signed on October 19th 2015 approved the standards for the service of transporting goods in vessels up to 100 gross tonnage between the ports of the inhabited islands of the Galapagos Province.

This standard is the tool to authorize cargo and transport vessels to operate within the Islands and to design navigation routes between the different ports in Galapagos. This activity is included in the Ecuadorian Ministry of Environment National Environmental Catalogue (CCAN, in Spanish) and it provides the following categories:

- Marine transport of passengers (port to port, not for tourism) (Galapagos). From 1 to 60 gross tonnage. Environmental registry.
- Marine transport of passengers (port to port, not for tourism) (Galapagos). Greater than 60 gross tonnage, Environmental License.

Through environmental regulation under the above mentioned categories, the Environmental Authority has the ability to monitor the activities of cabotage vessels and to ensure that these operations are performed properly. This will be done through a personalized and individual handling system, with minimal negative impacts to the Galapagos ecosystems.

### **2.1.2.- Cargo harbor in the city of Guayaquil**

An analysis was made to identify the best location in Guayaquil to build a harbor for boats heading to Galapagos. This was necessary as all cargo for Galapagos shared a harbor locally known as “La Caraguay” located next to a large produce market.

The efforts of the Ecuadorian Government, resulted in finding a suitable location to load and inspect vessels destined for Galapagos. This harbor will provide for the proper management of the cargo as well as facilitate the inspection and quarantine control system.

The main objective of the cargo harbor in the city of Guayaquil is to “consolidate efficient mechanisms to raise the public health level by consuming products in good state and to raise the level of control of such products by establishing an exclusive area for cargo in the port of Guayaquil”. The construction of this quarantine control port will reduce the potential for the arrival of invasive species to Galapagos.

The project for the construction and operation of a cargo harbor in Guayaquil for the Galapagos Islands was raised as a public investment Project by the MTOPE and was entered in the SIPEIP system of the National Secretariat for Planning and Development (SENPLADES, in Spanish). This Project will be carried out in 2016 and 2017 (**Annex 1**).

The project has the definitive structural and architectural designs as well as the definition and approval of the location where the exclusive Galapagos cargo harbor will be build:

**Location:** Plot of land known as ex Timsa, next to the Store Ocean port terminal, in Urbanización Pradera 3, tercera etapa, 11 callejón 47 SE, Mz.25. This plot belongs to the Ecuadorian Reserve Bank.

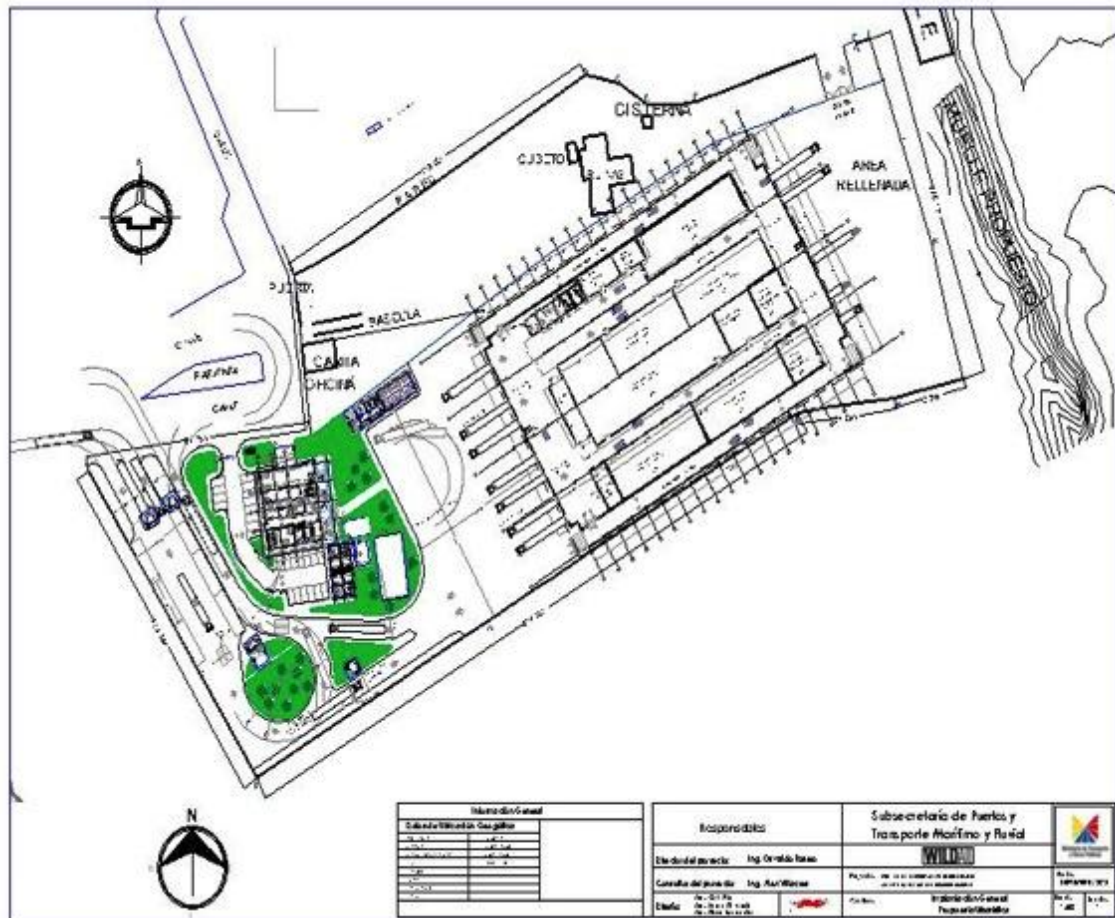
**Área:** 27 165 m<sup>2</sup>

**Perimeter:** 819 m

The proposed Project has the following areas:

- Entry and control area for cargo trucks
- Administrative area
- Load/Unload area

**Figure 2. Design of the marine cargo terminal for Galapagos.**



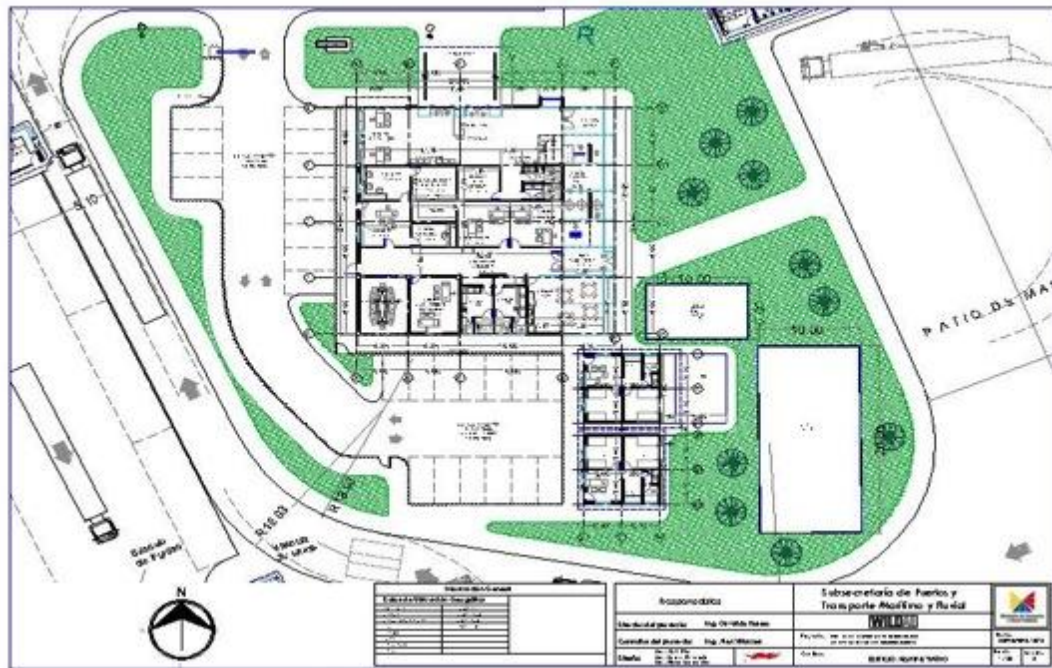
**Source:** Arquitectura – Ingeniería – Construcción Consultora. June 2015

**Administrative building:** The administrative building has the following areas:  
 a) Public, b) Inspection and control and c) Administrative:

**Loading/unloading and storage shed:** An industrial warehouse style shed that will answer the demands of the use of the space (security standards, quarantine treatment, etc.)

- a. Loading/unloading area
- b. Galapagos Biosecurity Agency area
- c. Common use areas
- d. Storage areas

**Figure 3. Blueprint of the administrative building**



Source: Arquitectura – Ingeniería – Construcción Consultora. June 2015.

**Figure 4. Facade of the cargo loading/unloading and storage shed.**



Source: Arquitectura – Ingeniería – Construcción Consultora. June 2015.

**Facade:** The facade is part of the corporative image used by the Ecuadorian Government for public buildings.

**Figure 5. Facade of the main administrative building.**



**Source:** Arquitectura – Ingeniería – Construcción Consultora. June 2015.

**Harbor in the maritime terminal:** The project includes an analysis and preliminary design of a stationary harbor for the mooring of cargo vessels. For this, the following information was taken into account:

- Soil study in the area where the harbor will be built.
- Architectural blue prints
- Estimated cargo loads
- Building materials properties

In the **Annex 2** one can see the proposed designs for the cargo harbor in Guayaquil.

**Equipment in the harbor:** The Table below indicates the equipment required for the optimal functioning of the Galapagos cargo harbor. The purchase of the equipment is included in the investment project approved by the MTOP.

## **2.2.- Environmental standards for vessel operation in the GMR**

The Ecuadorian Environment Ministry has authorized the Galapagos National Park Directorate to implement the control and monitoring plans of all vessels operating within the Islands. This was carried out in the resolution No.050-2013 from the Galapagos National Park Directorate drafted in May 2013. The environmental standards detailed below are part of an interinstitutional strategy to help the biosecurity process for Galapagos.

After the technical inputs, the next step is to provide the biosecurity system with control tools that could be applied by the users.

### 2.2.1.- Resolution No. 050-2013

The Resolution No. 050 from the of the Galapagos National Park Directorate (GNPD) establishes “the environmental standards for vessel operation in the Galapagos Marine Reserve, GMR” published on May 22, 2013 (**Annex 3**).

The Resolution provides guidelines on the following environmental standards for vessels operating within the GMR:

1. **Solid waste management:** includes regulations on solid waste management plan, garbage registry book, garbage classification system, disposal of normal waste and disposal of hazardous/toxic solid waste.
2. **Liquid waste management:** includes regulations on the treatment of grey and black waters, ballast water and the disposal of hazardous/toxic liquid waste.
3. **Environmental impact mitigation:** includes regulations on gas and noise emission, use of chemical substances that may harm the ozone layer, use of outboard engines and/or auxiliaries, type of hull paint and cleaning materials used on board the vessels.
4. **Prevention of introduction of exotic species:** includes regulations banning the transport of invasive species to the Islands by boat, mandatory fumigation and rat control of the vessel and other additional measures to avoid the introduction of species to Galapagos. Among the measures mentioned are light traps for insects, UV, low intensity external lights, amongst others.

The Resolution also includes a general disposition about the type of fuel allowed for the vessels operating within the GMR.

This resolution describes the main actions that all vessels will need to take in order to protect the fragile ecosystem of the GMR. It also mentions the possibility that the GNPD may perform random controls to verify that these environmental standards are being followed.

### 2.2.2.- Environmental check list

The environmental check list is a process of environmental control performed by the GNPD to the different types of vessels operating within the GMR. This control is done based on the Resolution No. 050, which establishes the environmental standards for vessel operation within the GMR (**Annex 4**).

This check list has the following sections:

1. Vessel information
2. Solid waste management
3. Liquid waste management
4. Hazardous substances and waste



5. Environmental impact mitigation
6. Invasive species prevention

The compliance of the environmental check list is mandatory for the operation or the entrance of any vessel into the GMR. A vessel may only continue operations when it has fulfilled at least or greater than 80% of the environmental standards.

Action is taken when there is non-compliance by the vessel, which has to be solved in a specific time frame which depends on the infraction.

This inspection is ongoing and random to all these types of vessels:

- Cargo ships arriving from mainland Ecuador
- Cargo barges operating within Galapagos or arriving from mainland Ecuador
- Inter-island transport boats (for passengers)
- Foreign flag vessels
- Artisanal livelihood fishing vessels
- Water taxis
- Passenger transport boats
- Day tour vessels
- Live-aboard vessels
- Any other type of vessels (barges, tugs, forced arrival vessels, other small vessels)

The Table below shows the number of inspections performed by staff from the GNPD on the three main inhabited islands during 2014 and 2015.

**Table 3. Environmental inspections performed to vessels in Galapagos.**

Island	Number of inspections	
	2014	2015
San Cristóbal	226	164
Santa Cruz	161	220
Isabela	70	45
<b>Total</b>	<b>457</b>	<b>429</b>

**Source:** Environmental Management Unit, GNPD. December 2015.

The checklist is currently being reformed in order to avoid work duplication with the Galapagos Biosecurity Agency, taking into account that this entity is in charge of the prevention of the introduction of exotic species to Galapagos.

The results to date of the approximately two years of the implementation of this check list are:

- The environmental control process for the vessels operating within the GMR is working successfully. It fulfills the objective, which is to safeguard the ecological integrity of the Archipelago.
- The foreign vessels and those under forced arrival pose a greater risk to the GMR as they arrive from foreign ports. Because of this, the improved control procedures will help reduce the risk of the arrival of exotic marine species, especially in the hulls of visiting foreign vessels.

### 2.2.3.- Resolutions of the Galapagos Biosecurity Agency

The Galapagos Biosecurity Agency (ABG, in Spanish) has implemented standards that aim to avoid the introduction of exotic species to the archipelago or to other islands by means of inter-island movement.

The resolutions issued by the ABG that are relevant to preventing the arrival of pests to the island are:

- **D-ABG-013-011-2013:** All means of transport, including air or marine, civil or military, public or private that moves around the province of Galapagos and between the islands therein, must carry out procedures to remove insects so as to reduce the risks of introduction, movement and dispersal of exotic organisms to the province of Galapagos (**Annex 5**).
- **D-ABG-013-012-2013:** Establish mechanisms and actions of preventive control against the introduction and spread of exotic species through shipping, from the mainland or from other countries to the Galapagos province and between the islands. For this, it is mandatory to remove insects from all means of marine transport, civil or military, public or private that going to or transiting through Galapagos (**Annex 6**).
- **D-ABG-014-012-2013:** Establish mechanisms and actions of preventive control against the introduction and spread of species. This should be mandatory for all tourist vessels operating in the Galapagos Marine Reserve (**Annex 7**).

Besides the above mentioned regulations, staff from the ABG carry out sanitary inspections of the vessels. These inspections are done in the hull and decks (**Annex 8**).

The table below shows the number of inspections performed by Galapagos Biosecurity Agency staff. There has been a total of 541 biosecurity inspections in vessels operating in the GMR.

It is important to mention that the ABG performs the most important preventive control when inspecting the vessels in Guayaquil prior their trip and arrival to the GRM as there is greater risk of pests in Guayaquil.

**Table 4. Vessel inspections performed by the ABG. Year 2015.**

Type of vessel	Place of inspection					
	Guayaquil	Santa Cruz	San Cristóbal	Isabela	Floreana	Total
Cargo ships	39	24	29	21	2	<b>115</b>
Tourism ships	34	31	3	0	0	<b>68</b>
Research ships	1	3	0	0	0	<b>4</b>
Fuel tankers	0	1	0	0	0	<b>1</b>
Fishing	0	2	0	0	0	<b>2</b>
Ferries	0	4	5	0	0	<b>9</b>
Barges	2	6	12	11	4	<b>35</b>
Tugs	20	10	17	0	0	<b>47</b>
Yachts	0	0	14	0	0	<b>14</b>
Sail boats	1	54	155	34	2	<b>246</b>
<b>Total</b>	<b>97</b>	<b>135</b>	<b>235</b>	<b>66</b>	<b>8</b>	<b>541</b>

Source: Galapagos Biosecurity Agency, ABG. December 2015.

### 2.3.- Strengthening of the Galapagos Biosecurity Agency

The Galapagos Biosecurity Agency does the ex-ante control in the biosecurity chain through the control of the arrival of invasive species to Galapagos. Its role focuses on the prevention and control in the cargo harbors and airports in Quito, Guayaquil and each of the inhabited ports in Galapagos. There is ABG presence in eight control and inspection sites.

The system is complemented by the work done by the GNPD which undertakes the control ex-post. The GNPD carries out eradication of invasive species that have arrived to the marine and terrestrial protected areas.

The creation and strengthening of the ABG improves invasive pest control, an important preventive measure to combat any added impact caused by climatic events such as “El Niño” o any other event that may happen from global warming that may impact Galapagos in any given time.

#### 2.3.1.- Creation of the Galapagos Biosecurity Agency

The Galapagos Biosecurity Agency ( ABG in Spanish) was created by means of the Executive Decree No. 1319 published in the Second Official Registry, Supplement No. 811 on October 17th, 2012 (**Annex 9**).

The ABG is a public entity affiliated to the Ecuadorian Environment Ministry with administrative, financial, technical and operative autonomy. Based in Puerto Ayora, Santa Cruz Island, Galapagos, the organization has the capacity to control, regulate, avoid and reduce the risk of introduction, movement and dispersion of exotic organisms to the Galapagos Islands that may pose a threat to human health, the economic system or the agricultural activities.

ABG’s most important responsibilities are:

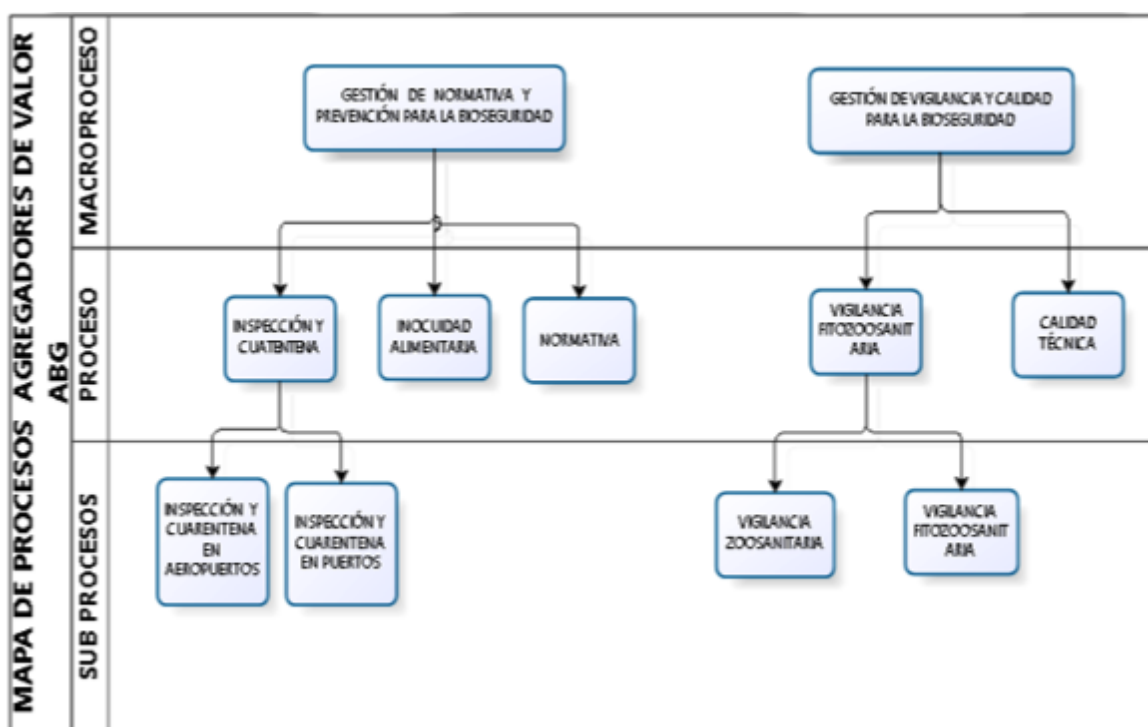
- Protect the biological and sanitary security of the inhabitants of the province of Galapagos.
- Protect all native plants and animals, endemic and domestic species of any sanitary risk within the terrestrial and marine ecosystems, including those introduced species that are of economic, social or agricultural interest.
- Act on the control, management and eradication of introduced and invasive species that are harmful to the ecological integrity and the biodiversity, the preservation of public health and to the agricultural activities in the urban and rural zones of the province of Galapagos.
- Justify technically and scientifically the declaration of a sanitary and phytosanitary emergency in the province of Galapagos and to put it forward for the consideration of the Environment Ministry.
- Dictate the opening or closing of control sites in ports, airports or any other place from where people, cargo or luggage can move to Galapagos, either from mainland Ecuador or within the province. The decision as to open or close a site must have a technical or scientific justification.
- Name as Galapagos Quarantine System inspectors, those persons who meets all the established requisites.
- Implement and administer an updated information system on the presence and location of introduced species.
- Develop and put into practice training and information programs for ABG personnel and residents, tourists and transit passengers of the province of Galapagos.
- Control the arrival and sale of agricultural products (fertilizers, agricultural and veterinary products).
- Create a program for the eradication of exotic plant and animal species in accordance to the Total Control Plan of Invasive Species in urban and rural zones. The ABG should coordinate with the GNPD, the Galapagos Government Council and the Galapagos office of the Ministry of Agriculture.
- Authorize and control chicken, pig and cattle farms as well as slaughterhouses already existing or to be established in Galapagos.

The figure below presents the ABG's organigram<sup>2</sup>.

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<sup>2</sup> La ABG con oficinas técnicas en la isla San Cristóbal, Isabela y Floreana y en las ciudades de Quito y Guayaquil. La oficina central está ubicada en Puerto Ayora, Santa Cruz.

Figure 6. Galapagos Biosecurity Agency's organigram



Source: Official organigram for the ABG. Official Registry No. 31, July 29 2013.

### 2.3.2.- Strengthening process for the Galapagos Biosecurity Agency

The process of institutional strengthening of the **Galapagos Biosecurity Agency's** (ABG) has three major actions:

1. Development of a policy to fulfill its objectives, including the creation of organic statute for processes where the powers and functions performed by each department of the ABG are established.
2. Defining the services provided by the institution.
3. Secure facilities, infrastructure and equipment necessary to meet corporate goals.

#### 2.3.2.1.- Organic statute for organizational management

By means of the Resolution No. 2, from July 29th 2013, as published in the Official Registry, Supplement 31, the Board of the ABG issues the Organic Statute of organizational management processes of the ABG.

**Mission of the ABG:** To control, regulate, avoid, prevent and reduce the risk of the introduction, movement and spread of exotic organisms by any means that may threaten human health as well as the economic system of Galapagos and its agricultural activities; and to contribute to the conservation of the ecological integrity of the terrestrial and marine ecosystems and the biodiversity (native and endemic) in each of the islands of the Archipelago of Galapagos.

**General objective:** Protect the animal and plant species, native, endemic and domestic species of the Galapagos terrestrial and marine ecosystems including those introduced species that are of economic, social or agricultural interest.. Moreover, it aims to take care of the biological and sanitary safety of the inhabitants of the province of Galapagos.

**Strategic objectives:**

1. Manage the biosecurity issues for Galapagos.
2. Control, regulate and prevent the arrival of products, sub-products and derivatives of animal and vegetable origin aiming to reduce the risk of the introduction of species and other products that could affect human health, agricultural activities and the native and endemic species of Galapagos.
3. Control, regulate and reduce the dispersion of introduced species by means of technical and scientific tools so as to avoid pests and diseases threatening human health, agricultural activities and the biodiversity of Galapagos.
4. To regulate and control the introduction, movement and spread of exotic species, pests and diseases from mainland Ecuador to Galapagos and between the Islands.
5. Apply zoo sanitary and phytosanitary measurements to control the establishment and spread of pests and diseases present in the Islands.
6. Prevent the zoo sanitary and phytosanitary risks by early detection strategies.
7. Ensure food quality by means of standards and procedures to safeguard human health in Galapagos.
8. To regulate, plan and coordinate the dynamic research plan on introduced invasive species based on a prioritization procedure. This research targets the management and control on rural and urban areas in Galapagos.
9. Develop communication strategies to teach about prevention, about how to deal with exotic and invasive species and institutional strengthening. The audiences for these strategies are the local, national and international community.
10. Promote participative management in prevention and management of invasive species amongst public institutions, municipalities, private companies and public in general.

**2.3.2.3.- Equipment and infrastructure**

Since its creation, the ABG's infrastructure, equipment, staff and knowledge has been strengthened. ABG's strategic plan presents its organic structure, financial resources, infrastructure and equipment.

To date, the Agency has 196 staff members on mainland Ecuador and in Galapagos ; Quito, Guayaquil and Galapagos (Santa Cruz, San Cristóbal, Isabela and Floreana islands).

In order to fulfill its activities, the ABG has five X-ray machines located at:

- Baltra: 2 machines, San Cristóbal: 1 machine, Quito: 1 machine y Guayaquil: 1 machine.

To undertake biosecurity inspections on vessels, especially in the hull, the ABG counts on a marine inspection unit which has two inflatable dinghies and scuba diving gear.

For the inspections, monitoring and control in the inhabited zones of Galapagos, the ABG has the following vehicles:

- Santa Cruz: 4 vehicles (new) and 2 motorcycles
- San Cristóbal: 2 vehicles
- Isabela: 1 vehicle
- Quito: 1 vehicle
- Guayaquil: 2 vehicles

Additionally, the ABG has specialized equipment for the surveillance and control of domestic species (e.g. wasps, ants, rats, cockroaches, cats, dogs, etc.). It is important to highlight the work to intercept terrestrial invertebrates in the ports and airports. For the analysis of samples, the ABG has laboratory equipment that can detect livestock and domestic animal diseases.

### 2.3.3.- Eradication of invasive species

The activities towards the elimination of introduced species – which are normally detected in the monitoring performed by the GNPD and several times in joint work with staff from the ABG – has controlled and eradicated invasive species in natural areas and even in inhabited zones. The eradication of introduced species carried out by the GNPD has been successful in furthering the ecosystem restoration of Galapagos. The table below presents the eradicated invasive species.

**Table 6. Invasive species eradicated by the DGNP.**

Specie	Islas															
	Isabela	Floreana	Santa Cruz	San Cristóbal	Santiago	Bainbrigde	Marielas	Rabida	Española	North Seymour	Pinzón	Champion Islet	Baltra	Pinta	Santa Fé	Marchena
Goats	X <sup>A</sup>	X			X			X	X		X		X	X	X	X
Pigs					X											
Donkeys	X	X			X											
Cats													X			
Dogs	X	X	X													
Black rats						X	X	X		X	X					
Little fire ant															X	X

Fire ant														X				
Common Pigeon	X		X	X														
Blackberry B			X <sup>B</sup>															
Jaboncillo					X													
African tulip tree			X															
Lemon					X													
Naranjilla					X													
Avocado					X													
Sweet orange					X													
Bitter orange					X													

**A:** Goat eradication was eradicated from the north part of Isabela Island. **B:** *Rubus melaganococcus* was eradicated. **Source:** Ecosystems Unit. DGNP, 2015.

### 2.3.4.- Galapagos Invasive Species Trust Fund, FEIG

In order to provide economic sustainability to initiatives or projects related to invasive species and thanks to the support from international organizations, Ecuador led the creation of a trust fund specifically for the control of invasive species. The Galapagos Invasive Species Trust Fund (FEIG, in Spanish) has co-funded 22 initiatives ranging from research and monitoring projects, the elaboration of manuals and specialized consultancies to providing experts to determine the different problems caused by invasive species.

FEIG is a trust fund that will need to recapitalize in order to have a wider scope, especially with a view to strengthening climate change scenarios in Galapagos. This should constitute an important alert to keep looking for technical, economic and scientific resources to prepare better for climate change.

FEIG was created through a tripartite agreement between the Ecuadorian Environment Ministry (MAE, in Spanish), the United Nations Development Program (UNDP) and the National Environmental Fund (FAN, in Spanish). FEIG receives funds from the Ecuadorian government and donations from governments and not for profit organizations. FEIG will protect its value through investments that will yield returns that will be used exclusively for the control of invasive species in Galapagos.

FEIG's board includes the Environment Minister, two representatives of the donors, one scientist expert on biodiversity conservation and one representative of the civil society of Galapagos. The UNDP participates with voice but no vote. For the analysis and decision making process about the projects to be co-funded, the FEIG has the technical backing of the Invasive Species Committee, which incorporates different actors in the management of invasive species.

The returns of the Fund are used to finance projects and/or activities aiming to manage the invasive species in Galapagos and to cover administrative and operative expenses.

FEIG's resources are to be used in:



- Co-Funding projects and/or activities through a call for proposals
- Direct funding, with or without counterpart funds from the grantees, aimed towards activities deemed as priorities by the Invasive Species Committee and approved by the Board.
- Fund emergencies related to invasive species and pests.

In 2014 and 2015, FEIG funded nine projects through a call for proposals. Additionally, with the creation of the ABG, the Board of the FEIG saw fit to provide technical assistance through direct funding (with or without counterpart funds) and it was also necessary to provide help to two emergencies through immediate and flexible funds.

Please find below a list of the projects funded and executed:

### 1.- Galapagos Biosecurity Agency (ABG)

Co-funded projects	Funding		Status
	FEIG	ABG <sup>3</sup>	
Control and eradication of the giant African snail	60.000	43.650	In progress
Control and eradication of the fruit fly	60.000	107.900	In progress
Control of domestic introduced species in the rural and urban zones of Galapagos	110.000	104.600	In progress

Fuente: FEIG, December 2015.

### 2.- Galapagos National Park Directorate (GNPD)

Co-funded projects	Funding		Status
	FEIG	GNPD <sup>3</sup>	
Ecosystem monitoring and follow-up in Pinzon after rat eradication	120.000	222.700	In progress
Development of a biological control agent in Galapagos	120.000	177.500	In progress
Preliminary actions for cat and rodent eradication in Floreana	86.000	128.500	In progress
Farmers working together towards the control and eradication of invasive species in agricultural areas bordering the national park	120.000	195.000	In progress
Geographical information database for the monitoring and management of invasive species	85.000	167.000	In progress

Source: FEIG, December 2015

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<sup>3</sup> Donations in kind (vehicles, staff, etc.).

### 3.- Charles Darwin Foundation (CDF)

Co-funded projects	Funding		Status
	FEIG	FCD <sup>3</sup>	
Knowledge database on invasive species on Galapagos – Phase 1	61.000	35.000	Wrapping up

Source: FEIG, December 2015

The projects funded without counterpart funds are:

#### 1.- Galapagos Biosecurity Agency (ABG)

No	Activity funded 100%	Budget FEIG	Status
1	Biosecurity standards for the ABG	67.200	Finalized
2	Update of the general plan of a rapid response system for sanitary emergencies	50.600	Finalized
3	Update of ABG's Internal processes and procedures	33.000	Finalized
4	Surveillance and quality processes for the ABG	70.000	Finalized
5	Blueprints and management plan for the technical quality management unit, ABG	28.200	Finalized
6	Communication strategy for positioning and strengthening the ABG processes to meet corporate goals	45.000	Finalized
7	Design for implementing a system of occupational health and safety in the national system of management of risk prevention and procedures of IESS	19.500	Finalized
8	Consulting service for updating, elaboration and implementation of the regulation and the Introduced Species Total Control Plan in the Galapagos Province	78.000	In progress
9	Collecting the baseline information for the design of a unified computer system to authorize and manage the technical, administrative and financial processes of regulation and control agency for biosecurity and quarantine ABG	25.000	In progress
10	Develop a risk analysis that permits timely decisions, policy establishment to correct identified problems and long term biosecurity management	25.800	In progress

Source: FEIG, December 2015

#### 2.- Emergency funds

No	Emergency	Ejecut or	Budget FEIG	Status
1	Fruit fly in Baltra " <i>Bactrocera spp.</i> "	ABG	30.000	Finalized
2	Control of the fig wax scale " <i>Ceroplastes rusci</i> "	DPNG	30.000	In progress

Source: FEIG, December 2015

### **3.- TOURISM**

In 2014 and 2015 there was an uncertain period in Galapagos due to the construction of hotels (mostly international) that were attracted to the Islands due to the many medals and prizes Galapagos had earned in the past few years (please see below). The Ecuadorian government responded to expanded interest and the resultant tourism growth in 2012 with the first moratorium on hotel development. Later resolutions of the Galapagos Government Council defined a very strict set of instructions for accommodations projects. Also, the new Galapagos Special Law prohibits the building of new hotels without a new tourism census that includes a carrying capacity study to help define the new hotel regulatory plan.

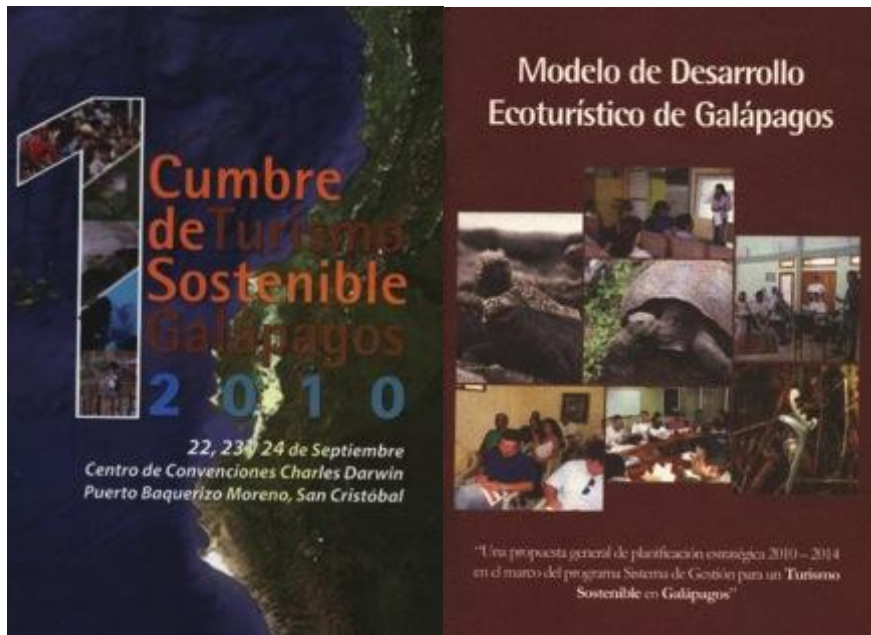
The sections below will provide an update of the many actions that have taken place during this period and that strengthen the idea of a sustainable tourism as the main economic activity in Galapagos and one of the most important sources of conservation funds. In the sections below there will be some details on the elements of the ecotourism model adopted by the province in 2010; the creation of the Tourism Monitoring System to yield important information on which to base management decisions; details to categorize tourist accommodation; alternative tourism products; and the artisanal vivencial fishery - one of the particular concerns of UNESCO Committee. There is a special section analyzing tourism growth data, which concludes that there is a reduction in the tourism numbers growth rate despite a relative increase in the numbers.

#### **3.1.- An update of the ecotourism model**

In the Galapagos Sustainable Tourism Summit held in 2010, Galapagos adopted the ecotourism model as the base for the tourism growth in the region. This model establishes four components that need to be implemented. Many of these were addressed by the Board of the Galapagos Government Council and adopted as a public policy. The main elements are:

1. Governance,
2. Destination re-engineering,
3. Tourism promotion and marketing, and
4. Tourism Monitoring System.

**Figure 7. Galapagos Sustainable Tourism Summit.**



**Source: Galapagos Government Council photographic archive, July 2011**

The implementation of this model is done jointly between the Ecuadorian Tourism Ministry(through the Regional Director), the Galapagos National Park Directorate and the Galapagos Government Council. The most important outcomes are:

**Governance:**

1. The new Galapagos Special Law approved in June 2015 presents information to regulate and control issues related to tourism growth and development.
2. Galapagos Tourism Accommodation Regulation, framed within sustainability and quality parameters, in force since November 13, 2015.
3. Total re-engineering of the Tourism Ministry in Galapagos through the creation of a Regional Coordinator with autonomy and own budget.
4. Galapagos Sustainable Development and Land Use Plan approved by the Galapagos Government Council on December 9<sup>th</sup>, 2015.
5. An update of all tourism standards and adoption of tourism quality as a public policy.

**Destination re-engineering:**

1. There are four ecotourism proposals: Ecotourism hike trail to Playa Ochoa in San Cristobal, Ecotourism management of Villamil Bay in Isabela, Ecotourism hike trail in Baltra, Ecotourism hike trail Old Road to Post Office Bay in Floreana.
2. Co-management agreement between the Galapagos National Park Directorate and the Floreana Community Center for the public use of the north part of Floreana.
3. Agro-tourism Project with the creation of the Galapagos Coffee Route.

4. Launch of the campaign “**Travel Ecuador First - Viaja Primero Ecuador**” (January 2014) designed to promote internal tourism, and to encourage Ecuadorians to discover and enjoy Ecuador’s four regions.

#### **Tourism promotion and marketing:**

1. Positioning of the Galapagos Islands as a green destination in the world.
2. Presence in international fairs.
3. Galapagos won many international prizes.

#### **Tourism Monitoring System:**

1. Creation of the Tourism Monitoring System in 2011.
2. Decision making based on technical information. Among the most important decisions are:
  - Limit to a maximum of 35 rooms (70 beds) all tourism infrastructure (December 2014);
  - New parameters for the Tourism Accommodation Regulation (May-November 2015).
  - Input gathering for the Tourism Guide Regulation (November-December 2015).
3. Agreement with ECOGAL (Baltra airport administrator) to do surveys and to measure visitor satisfaction level and to place notice boards with statistical information on Galapagos.
4. Cooperation agreement with the Ecuadorian Central University for their students to do apprenticeships within the Tourism Monitoring System and to gather information on certain topics, like marine transport.
5. Positioning of the Tourism Monitoring System locally, nationally and internationally (with international tourism operators and tourism fairs).
6. Launch of the First Galapagos Statistical Bulletin. The Bulletin will be bi-annual starting as of 2016 aiming to reach local and national audiences.

### **3.2.- Tourist accommodation supply management plan**

As stated in the Galapagos Special Law, a tourism census was done in order to understand, optimize and improve the supply of tourism accommodation in Galapagos.

This started in September 2014 when 440 establishments were identified, out of which 111 had a Tourism Registry and 329 were not included in the Tourism Registry. The latter became part of a process to include them in such Registry. The process included inspections to verify the minimum quality standards established by the Tourism Ministry, the Galapagos National Park Directorate, the local municipalities and Floreana parish.

After the inspections, 200 out of the 329 hotels went on to the next phase in which they had to obtain a pre-qualification from the Galapagos Government Council, the environmental authorization from the Galapagos National Park

Directorate and the approval of their project by the Tourism Ministry. The table below summarizes the process. 29% of those establishments (129) were not approved as they did not meet the minimum quality requisites and standards.

**Table 7. Accommodation establishments operating in Galapagos. November 2015.**

Establishments with Tourism Registry	Establishments not approved	Approved establishments to continue to next phase	Total of establishments at the start of the process	Total of establishments in operation by November 2015
111	129	200	440	311

**Source:** Regional Coordinator, Ministry of Tourism, November 2015.

### 3.3.- Environmental licenses for tourism vessels

Ecuadorian environmental regulations stipulate that all activities involving an environmental risk must have the respective environmental license, which in the case of Galapagos is awarded by the Environment Ministry, through the GNPD.

Based on this (Environmental Management Law), the GNPD began the process of environmental regulation of tourist vessels operating in the Galapagos Marine Reserve and other projects that could cause environmental impacts in the province.

It is important to mention that these environmental permits are issued in accordance to the national environmental categorization as per the requirements stated in Book VI of the Secondary Environmental Unified Law Text (TULAS, in Spanish) published in the Official Registry No. 316 in May 4<sup>th</sup>, 2015.

For the Galapagos tourism vessels, the environmental permit is granted through the following categories:

**Table 8. Types of environmental permits for the Galapagos tourism vessels operating within the GMR.**

Vessel Gross Tonnage	Type of environmental permit
1 – 60	Environmental registry
60 – 170	Environmental license
170 or greater	Environmental license

**Source:** Public Use Unit, DGNP. December 2015

Once the environmental license is authorized, all vessels must comply with the activities described in their project's Environmental Management Plan. The GNPD undertakes controls to check for compliance. Additionally, depending of the category of each project, the owners of the vessels should send self-monitoring reports and/or Environmental Audits to the Environmental Authority.

To date, 100% of the vessels (84 vessels) have the environmental permits issued by the GNPD in different categories and on different islands.

**Table 9. Environmental permits issued for the operation of vessels in the GMR.**

Environmental category	Permits issued	Island	Permits issued
II	31	Isabela	11
III	1	San Cristóbal	22
IV	52	Santa Cruz	51
<b>Total</b>	<b>84</b>	<b>Total</b>	<b>84</b>

**Source:** Public Use Unit, GNPD. December 2015

### 3.4.- Destination re-engineering

#### 3.4.1.- Ecotourism Project in Floreana

Destination re-engineering is one of the components of the Ecotourism Model for Galapagos. It's based on the development of a new model of ecotourism management based on community organization and it aims to empower the local population in the care and protection of the Island's ecosystems<sup>4</sup>.

The inhabitants of the Santa Maria Parish in Floreana, through the Community Center Floreana (CECFLOR, in Spanish), became the first private group to be in charge of the co-management of a natural protected area within the Galapagos Archipelago.

In August 2015 an agreement was signed between the Environment Ministry (through the Galapagos National Park Directorate) and CECFLOR for the use, maintenance and operation of tourism infrastructure, goods and services in the north part of Floreana (**Annex 10**). This co-management agreement is framed within the Ministry Agreement 054 from March 12, 2015 in which the Ministry of Environment issues the criteria for the management of tourism operations in protected areas of Galapagos.

This agreement seeks to promote the rational use of natural resources; sustainable development with social vision; the empowerment of the local population in an inclusive and conservationist way; and to develop high quality tourist services in the north part of Floreana Island.

It is important to mention that the CECFLOR is recognized by the Ecuadorian Ministry of Economic and Social Inclusion. The members of CECFLOR

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<sup>4</sup> The Galapagos Protected Areas Management Plan, 2014, in its Program 2.2 (Public Use Management) under its specific objectives and strategies aims to encourage "the cooperation and the management of the Galapagos community in the conservation, public use management and ecotourism management of the province"

represent almost the entire adult population of the Island. The members will participate in the tourism management process and the rewards from this project will go to a general fund towards the well-being of the inhabitants of this small community. A roadmap which will define the many technical, administrative and legal criteria is being drafted at the moment. These should be implemented upon the signing of the agreement.

### **3.4.2.- Agro-ecotourism in Santa Cruz Island**

The Tourism Ministry through its regional coordinator and the Ministry of Agriculture, Livestock, Aquaculture and Fisheries (MAGAP, in Spanish) is developing – jointly with the farmers in Santa Cruz – a “**Coffee Route**”. This is a new ecotourism product that will allow tourists to learn about the Galapagos coffee making process by visiting the coffee plantation farms that are part of this project.

Among the activities planned for this new tourism product are:

- Process of Certification of Origin for Galapagos coffee. This project was presented by the MAGAP with national and international coffee tasters, who analyzed samples from different types of Galapagos coffee beans and identified the characteristics that made Galapagos coffee unique. They determined that its aroma, consistency, etc. are due to the unique geographic conditions of Galapagos.
- Training farmers in the best technology for coffee planting, harvesting and final processing. They also promote the production of organic coffee.
- Marketing processes done by MAGAP’s Marketing Undersecretary designed to position Galapagos coffee as a unique coffee in the world, of very high quality which contributes to biodiversity protection.
- Strategic alliances with Ecuadorian foundations such as “Conservacion y Desarrollo” (C&D) and “Maquita Cushunchic Comercializando como Hermanos” (MCCH). Both foundations funded the study “Denomination of Origin for the Galapagos Coffee”, in which 50 coffee samples were obtained from San Cristóbal, Santa Cruz and Isabela, with the participation of 135 coffee farms.



### 3.5.- Tourism growth analysis

One of the biggest concerns of the Ecuadorian Government is tourism growth in Galapagos. National authorities maintain a tight visitor control in the protected and non-protected spaces of Galapagos.

Decades ago, tourism focused on the protected areas of Galapagos where most tourism activities used the “live-aboard cruise” model. In the last years, tourism has shown an important but controlled increase in different categories of land-based tourism. The consequences or impacts of this growth led the government to establish a set of technical, legal and political strategies to establish corrective and planning measurements that will allow to guide and control this problem.

The main tourism indicators show that in 2014 a total of 215,691 visitors entered Galapagos, which represent a 6% increase in comparison to 2013 and an average growth of 3.7% since 2007. Seventy percent of the visitors are foreigners and 65% of the total stay in land-based accommodation. Baltra airport receives 74% of the total of passengers arriving to Galapagos.

**Figure 8. Main tourism indicators for Galapagos. Year 2014.**



**Source:** Annual visitor report to the protected areas of Galapagos, DGNP 2014.

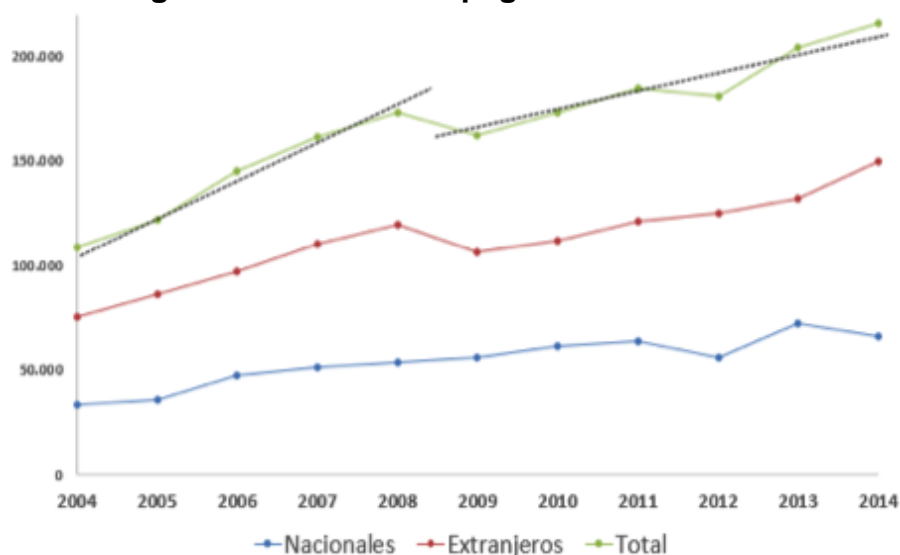
The report from the first semester of 2015 states that there were 113,613 visitors to Galapagos, which shows a 5% increase in comparison to the first semester of 2014. The growth is greater for foreign visitors (+6%) than for Ecuadorian visitors (+2%).

The greatest number of foreign tourists are from the United States of America. In the first semester of 2015, 85% of the visitors were from nine countries, including Ecuador. The most important countries are Ecuador (31%) and USA (29%), followed by Canada (5%), United Kingdom, Argentina and Germany (4%), Australia (3%), Switzerland and France (both 2%).

Additional information reports that 34% of the visitors enjoy Galapagos in a live-aboard cruise with an average stay of about seven days; 66% of the tourists prefer to stay in land-based accommodation in the inhabited towns.

When analyzing a decade of tourist numbers since 2004 it can be clearly observed that there is an increasing trend. However, it should be stated that upon analyzing in detail Figure 9, it can be observed that up to 2008 there was a marked positive trend, but as of 2009 this trend is less strong.

**Figure 9. Tourist growth trend in Galapagos**

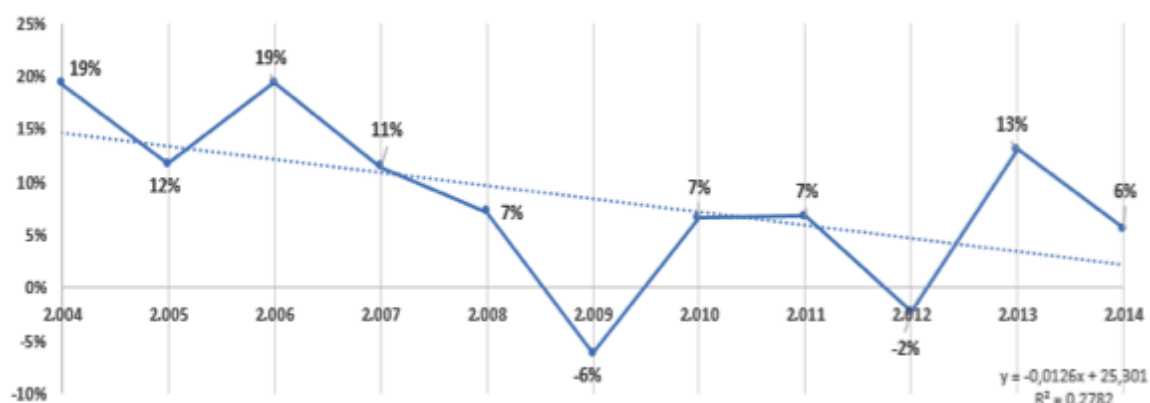


Year	Ecuadorian	Foreigners	Total
2004	33.876	75072	108.948
2005	35.586	86103	121.689
2006	47.840	97393	145.233
2007	51.406	110444	161.850
2008	53.468	119951	173.419
2009	55.964	106646	162.610
2010	61.574	111723	173.297
2011	63.700	121328	185.028
2012	55.772	125059	180.831
2013	72.276	132119	204.395
2014	65.694	149997	215.691

**Source:** Public Used Unit, DGNP. December 2015.

The previous statement can be observed more clearly when doing a short analysis of the Annual Growth Rate (AGR) which shows a decreasing trend (Figure 10). The annual growth of tourists compared to last year shows therefore a slowdown.

**Figure 10. Galapagos Annual Growth Rate trend**



Year	Total number of tourists	AGR
2004	108.948	19%
2005	121.689	12%
2006	145.233	19%
2007	161.850	11%
2008	173.419	7%
2009	162.610	-6%
2010	173.297	7%
2011	185.028	7%
2012	180.831	-2%
2013	204.395	13%
2014	215.691	6%

**Source:** Public Used Unit, DGNP. December 2015.

What could explain the reduction in the annual growth rate are related to policies undertaken by the Ecuadorian Government, amongst them: 1) promotion of specialized niches; 2) Visitor and itinerary management system (SIMAVIS, in Spanish); 3) Strategies to change the visitor's profile. This change can be seen in the average expenditure and the average stay per visitor.

The type of tourists needed in Galapagos are those interested in experiencing and learning about the Island's natural history and biodiversity, and that make a responsible choice of tourism services. The main objectives of a protected area are the conservation of its biodiversity and education about these issues to its visitors.

### **3.6.- Search for responsible visitors or tourists**

The Ecuadorian Government wishes to promote tourism as a government policy. In the Objective 10 of the National Plan of Good Living, PNBV 2013-2017, it emphasizes the need to drive the transformation of the productive matrix of Ecuador and notes tourism as one of the pillars for this transformation. These policies indicate the commitment of the Ecuadorian Government to promote the development of responsible tourism:

- 10.1.h), there is a need to position a conscious tourism as a cutting edge concept both nationally and internationally. This will ensure a proper government intervention with the private and popular sector and to develop an ethical, responsible, sustainable and inclusive tourism.
- 10.1.f), there is a need to promote internationally the Ecuadorian services, giving priority to tourism, transport, environmental services and software.

The Ecuadorian Tourism Ministry has promoted the country by participating in tourism fairs worldwide, with a special focus on the Galapagos Islands, as they are considered an example in management and protection of a fragile natural area. The international campaigns in which Galapagos and Ecuador have been advertised are:

- *Feel Again* campaign – pre-launched in February 2015 in New York, United States of America with the full launch in the United Kingdom in June 2015. This is the second phase of the *All You Need is Ecuador* campaign presented to the world in April 2014.

The *Feel Again* campaign excites the senses and invites the world to feel love, happiness, interest, curiosity, passion and awe. Ecuador's great diversity offers visitors countless multisensory experiences.

- In September 2015 18 artists from the United States of America, United Kingdom, Canada and Germany, participated in the *Feel Again* project in Ecuador. They connected with Galapagos, the Amazon, the Coast and the Andes and through the artistic expression of their experiences, will send the world a message about the beauty and diversity found in Ecuador.
- In 2015 the Ecuadorian Tourism Ministry took part in 20 international fairs and events.
  - Eleven trips were made with specialized journalists from China, Germany, United Kingdom, Colombia, Peru, Brazil, United States of America, Australia, Argentina and Chile.
  - There were eight trips with tour operators from the United States of America, Mexico, Germany, Australia, Brazil, Argentina and Chile.

These actions have positioned Ecuador at the international level and the Galapagos Islands as one of the top tourism destinations. Ecuador's impressive list of awards attest to the effectiveness of these efforts:

- In 2013, 2014 and 2015 Ecuador won the World Travel Award as the "World's Leading Green Destination".
- The marketing campaign "Sombras", launched in May 2015 as part of the national campaign *Ecuador Potencia Turística*, took first place in the

2015 Independent Marketing Festival, “**Inodoro Pereyra**”, held in Rosario, Argentina.

- In August 2015, *Lonely Planet* included the Galapagos Islands as one of the top 20 destinations worldwide.
- In July 2015, *Travel + Leisure* magazine named the Galapagos Islands as one of the best islands in the world in recognition of the conservation efforts to preserve the Archipelago.
- In February 2015 the newspaper *USA Today* chose the Galapagos Islands as the “Best place for wild life”
- In December 2014, Seymour Ecological Airport in Baltra received the LEED (*Leadership in Energy & Environmental Design*) Gold certification as a leader in energy efficiency and environmental design.
- In August 2014, during the 19th edition of the World’s Best Awards 2014 the Galapagos Islands were recognized as the “Best Islands in Mexico, Central and South America”.

Such nominations and awards reflect an improved global image and quality tourist experience managed within the logic of sustainable tourism activities such as ecotourism and / or nature tourism.

### **3.7.- Galapagos Tourism Observatory**

The Galapagos Tourism Observatory is one of the components of the ecotourism model for Galapagos. This system provides a platform for information, study, research and follow-up of tourism in Galapagos. It was official launched in April 2011, becoming the first Tourism Observatory in Ecuador.<sup>5</sup>

The information produced with the Tourism Observatory is the base for the creation of national green accounts for Galapagos. While tourism is one of the principal economic activities in Galapagos it does generate threats to long term conservation of the Islands.

The national green accounts are a powerful tool to quantify ecosystem contribution to production as well as environmental liabilities generated by production activities. This tool can target investments in the tourism sector in activities that seek to remedy or reduce their impacts on ecosystems.

The GNPD and the Observatory are planning dashboards that will show relevant tourism information in the protected areas of Galapagos. These include indicators on the tourism operation permits, authorized itineraries and allowed activities (vessel capacity, name of the permit holder, type of tourism, vessel

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<sup>5</sup> The first tourism monitoring system was conceived in Galapagos and became the model for other provinces of mainland Ecuador.

information, photos, etc.) It is expected that this dashboards will be ready by the first quarter of 2016.

These tools will initially be only for the use by the GNPD and the Observatory. The following visual tools has been developed and is currently being tested with the intention to incorporate them into GNPD management programs in 2016:

1. **GNP Naturalist guides information:** this dashboard shows the data provided to the GNPD from naturalist guide reports. The reports include visitor numbers by month, day and itinerary, types of tourism operation (live-aboard cruise, bay tour, dive live-aboard cruise, day tour), total number of Ecuadorian and international visitors by site and time. Results from 2014 have been entered.
2. **Visitors to the GNP:** this dashboard presents the number of visitors per country of origin, total visitor numbers per year (since 2007), type of accommodation, length of stay, port of entry to Galapagos, entry and exit date, age of visitors, and other data useful to guiding management decisions. This information gives an understanding of the demographic profile of the people visiting Galapagos.
3. **Monitoring of the visiting sites:** this tool shows the long term monitoring of the tourism sites done by the GNPD's Public Use Unit. This dashboard shows information on the state of the tourism infrastructure, presence of garbage, introduced species, erosion and state of signage etc. It includes geo-referenced data from the monitoring in chronological order. This tool contains information from 2014 and 2015.
4. **Vivencial Fishing (or pesca vivencial, in Spanish):** this tool permits monitoring data from **Vivencial** Fishing activities. It shows vessel occupancy, sites used, number of passengers per visiting site, catch composition and weight, etc.

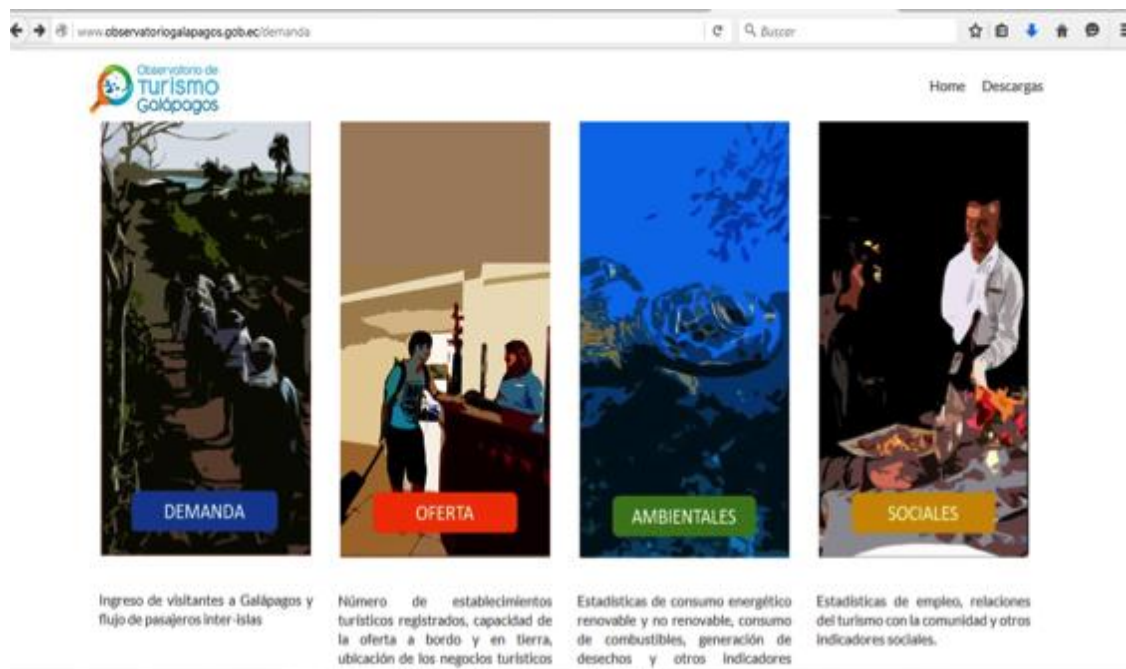
A summary of the major outcomes from the Galapagos Tourism Observatory:

- The information from the Observatory has been the base to create strategies, public policies and institutional decisions aimed at improving the tourism, social and environmental aspects of Galapagos.
- The database has allowed an ongoing analysis of tourism in Galapagos. It has become an important tool for planning and better tourism management.
- The six-month reports have kept the community informed with accurate, up-to-date and free access data.
- There are indicators that allow the visualization of the dynamics of tourism in Galapagos, to monitor its impact and to make informed decisions.
- It has become a model for the development of the tourism industry in the other provinces of Ecuador.
- It has provided ongoing statistics and tourism indicators for specific studies and tourism related activities; information such as visitor numbers, spending patterns, satisfaction levels, types of travel, etc.

- Joint work between the GNPD and the Observatory has strengthened the monitoring of tourism in Galapagos.

The Observatory has an interactive online site that keeps the local, national and international population informed on tourism in Galapagos. URL: <http://www.observatorioturismogalapagos.gob.ec>

**Figure 11. Online site for the Galapagos Tourism Observatory**



**Source:** Observatory Online site, December 2015.

### 3.8.- Strengthening of the Galapagos Vivencial Fishery

For many years, the Galapagos Vivencial Fishery was seen as an alternative economic activity for the Galapagos artisanal fishing sector. The idea however was not reflected in the reality of implementation as the project was a mixture of fishing and tourism. In 2012, after almost a year of collaboration between the artisanal fishing sector and government institutions (CGREG, MINTUR, NAVY, GNPD), it was decided that this activity was better if recognized as a type of tourism. The Participatory Management Board approved the new activity and the GNPD issued Resolution 007-2013 valid from January 18th. Both documents regulate and establish responsibilities for the activity.

In 2012, the GNPD issued a total of 56 permits for the Vivencial fishery to operate in the Galapagos Marine Reserve. In 2015, only 31 permits are still in use, of which 12 are from Santa Cruz, 9 from San Cristobal and 10 from Isabela. This indicates that the Vivencial Fishing activity still needs to be strengthened in order to be considered as an ecotourism product that contributes to the sustainable development of the Islands and of the fishing sector.

Aiming to strengthen this activity, the public institutions working on this process (CGREG, Navy, MINTUR y GNPD) drafted a roadmap in July 2015 which is still in force. The table below (#12) shows what is being done to strengthen this activity.

**Table 12. Vivencial Fishing strengthening chronogram**

Problems	Recommendation	Activities
The <b>concept</b> of the product does not adjust to a day tour reality	<ul style="list-style-type: none"> <li>• <b>Conceptualize</b> the different products in light of the reality, maintaining management limits and ensuring fair competition among licensed operators.</li> <li>• Create a clear <b>identity</b> around each product (attractions + activities + services + equipment)</li> <li>• Make it "genuine" and look for the market that values/asks for this product.</li> </ul>	<ul style="list-style-type: none"> <li>• Define the different products originating from the Vivencial Fishing operation.</li> <li>• Define tourism products, gathering of information and promotional maintenance.</li> <li>• Create a provincial committee to involve more stakeholders</li> <li>• Meetings to sign the agreement between the fishers and all institutions involved.</li> </ul>
There is no information on the current or future demand of the different products of Vivencial Fishing (Cause: lack of reports)	<ul style="list-style-type: none"> <li>• There are good opportunities to collect information which should be taken advantage of by means of incentives or sanctions.</li> <li>• It is necessary to reach to an agreement with the people involved to produce reports.</li> <li>• There needs to be support from different public entities to monitor the commitment to report.</li> </ul>	<ul style="list-style-type: none"> <li>• Design a form to report Vivencial Fishing trips. It should include the data needs for decision making.</li> <li>• Design a financial report form to do a follow-up with the financial sustainability of the operation.</li> <li>• Capacity building</li> <li>• Trip reports per operator and financial quarterly report.</li> <li>• Compare reports with the data from the port captain ('<i>zarpes</i>').</li> </ul>
Little connection with the value chain, either horizontally (no associations) or vertical (little commercial relationship with mainland Ecuador and Galapagos travel agents)	Develop a marketing strategy for each of the products	<ul style="list-style-type: none"> <li>• Training in tourism system to identify the product and its marketing.</li> <li>• <i>Fam Trips</i> according to each product.</li> </ul>
Little information about the product in Galapagos	<ul style="list-style-type: none"> <li>• Improve the official information in Information booths, webpages, brochures, etc.</li> <li>• Disseminate information among international, national and local agencies.</li> </ul>	<ul style="list-style-type: none"> <li>• Relaunch product with tourism operators.</li> <li>• Edit promotional material</li> <li>• Train communicators</li> <li>• Issue a letter to mainland Ecuador tourism agencies providing details of this tourism alternative.</li> </ul>
Conflict management of visitor sites	Management model unifying the management conditions with the other types of day tour.	<ul style="list-style-type: none"> <li>• Design a site/operation management scheme according to the reality of the operation</li> <li>• Issue resolutions according to the</li> </ul>



Problems	Recommendation	Activities
		new products.
Low product quality	Capacity building to improve quality.	<ul style="list-style-type: none"> <li>• Interpretative script for guides.</li> <li>• Training in hospitality.</li> <li>• Training in customer service.</li> </ul>

**Source:** Public Used Unit, GNPD. December 2015.

It is important to highlight that this activity is adapted to the reality of the use of the coastal zones of the main islands, based on the availability of sites and the acceptable carrying capacity.

Although there are deficiencies related to the operation, there have been advances in the activities outlined in the previous table. There are on-going discussions and operator training, credit lines for vessel improvement, fine tuning of the management model and collaboration with the Tourism Authority on strengthening the internal promotion of this activity in Galapagos. This year, this activity has been officially recognized and regulated.

### **3.9.- Hotel infrastructure and intersection with the protected areas:**

In 2014 the Ecuadorian government reviewed regulations related to new hotel infrastructure. A polemic case involved a project on San Cristobal Island that was thought to be considered for construction within the protected areas. After analyzing the San Cristobal municipal land registers the site was identified as falling under municipal jurisdiction.

Other high-end boutique hotels presented projects to the Galapagos Government Council, but were subsequently rejected as they did not meet the sustainable development standards imposed by Galapagos development policy.

To strengthen the internal development policy, the new Galapagos Special Law issued in June 2015 clearly references the criteria for any future hotel construction. Article 72 of the Law clearly states that: "It is prohibited to build new tourism accommodation or to expand the already existing hotels that do not meet what has been stipulated in the Hotel Regulatory Plan as established by the National Tourism Authority".

While the Galapagos Special Law was the engine for creating a revised policy on hotel infrastructure growth, there had previously been concrete actions to regulate private tourism accommodations initiatives. The Galapagos Government Council, as the authority in charge of authorizing the building of new tourism infrastructure in Galapagos, decided in October 2012, on the guidelines required to authorize the building of new tourism infrastructure aimed to provide accommodation in Galapagos. This is documented in Resolution No. 018-CGREG-2012

These guidelines define the steps to obtain an authorization to build new tourism infrastructure:

1. Obtain the pre-qualification from the Galapagos Government Council.
2. Perform an environmental impact assessment and obtain an environmental license issued by the environmental authority
3. Obtain the authorization for the construction and refurbishing of the buildings from the Tourism Ministry through its regional coordinator.
4. Blueprints need to be approved by the Municipality.
5. Provide to the Galapagos Government Council all authorizations and documents included in the procedure for the Council to definitely approve or deny the project.

In July 2013, the CGREG, through Resolution No. 014-CGREG-18-VII-2013, established a moratorium on construction in order update the regulations to ensure that future development would comply with the construction, social, environmental and tourism criteria and to govern permits for the building of new infrastructure or the expansion of tourism beds.

In August 2014, the CGREG, through Resolution No. 021-CGREG-29-VIII-2014, decided to:

- Approve the matrix for environmental, tourism and social parameters for the construction of new tourism infrastructure.
- Lift the moratorium for new priority tourism infrastructure and administrative processes.
- Keep the moratorium for the expansion of new tourism beds.

To keep within the established norms and to control investor interest in developing large resort style boutique hotels, in December 2014, through Resolution No. 040-CGREG-10-XII-2014, the CGREG approved a maximum of 35 rooms and 70 beds for the construction of new hotel infrastructure.

In September 2015, after analyzing 21 tourism projects, the CGREG, through Resolution No. 030-CGREG-04-IX-2015 decided to authorize a total of three (3) projects for the construction of new tourism accommodations infrastructure (**Anexo No.11**).

**Table 11. Hotel projects authorized by the CGREG**

Project	Location	Number of rooms	Within any protected area?
Galapagos Elite Hotel	Barrio Central, Calles Islas Plazas e Indefatigable, Urban area, Santa Cruz Island	16 rooms / 30 beds	No
Zaploe	Km 13,7 vía a Puerto Ayora – Santa Rosa, rural area, Santa Cruz Island	10 cabins / 20 beds	No
Eco cabañas Floreana	Calle Juan Salgado y Ezequiel Zavala, urban area, Floreana Island	10 rooms / 32 beds	No

**Source:** Public Used Unit, GNPD. December 2015.

As a summary:

- The CGREG approved three hotel projects out of 21 presented.
- None of the approved projects has more than 16 rooms or 32 beds.
- The approved projects are not within or next to the Galapagos National Park natural protected areas.
- The approved projects belong to local residents hence the investment is 100% from permanent residents of Galapagos.
- The projects Zaploe and Galapagos Elite already have their environmental license whilst Eco Cabañas Floreana has started the process to obtain its environmental license.

#### **4.- GOVERNANCE**

With the passing of the Special law in June 2015, there was the expected misunderstandings and speculation on the content. The revised name by which the Galapagos National Park is recognized in the document, the- "Decentralized Administrative Unit"- caused concern that the GNPD's authority was being changed.

The change was a requirement to bring the document in line with state policy. Regulatory and legal bodies are to avoid having institutional names within Laws, as this hinders reforms made by the State Government.

Another example of the above mentioned is that the Environment Ministry appears in the current legal bodies as "The National Environmental Authority" but does not lose the status of being the principal secretary of state on environmental issues of Ecuador.

With regard to the Galapagos National Park, the scope of Article 20 in the Galapagos Special law is detailed below.

Regarding the governance of the Galapagos, the significant progress to strengthen it was printed on the new Galapagos Special Law, adopted on June 11<sup>th</sup>, 2015 by the National Assembly, where the Government of the Republic of Ecuador ratified its commitment to maintain and strengthen the protection of this World Natural Heritage.

##### **4.1. Galapagos Law**

The Law addresses, in a technical manner, the conservation and sustainability of the protected areas of Galapagos. The main articles that strengthen and consolidate the governance and protection of the islands are detailed below:

**Art. 2. Purposes.** To achieve the national Good Living Plan, this law has the following objectives:

1. The conservation of the ecological systems and the biodiversity in the province of Galapagos, especially the native and the endemic, whilst allowing the continuation of evolutionary processes of these systems with

minimal human interference, taking into account, in particular, genetic isolation between the islands, and from these to the mainland and reducing the risk of introducing of disease, pests, plant and animal species exotic to Galapagos;

2. Integrated management between inhabited and protected areas, terrestrial and marine, recognizing the interactions between them;
3. To achieve a balance between mobility and residence of people to and from the province and between the islands in direct correspondence with the environmental limits of the Galapagos province, regulating and controlling its geographical openness, in accordance with the provisions of the Constitution and the law.

This article, and especially its three objectives, show a clear commitment to the defense and conservation of natural resources in the Galapagos province, covered in Chapter Seventh of the Constitution of the Republic of Ecuador.

**Art.3. Principles.** The public and private policies, plans, standards and actions in Galapagos and its protected natural areas, seek sustainability and balance between the state, society and the economy, which involve three inherent elements of social development management, nature's conservation and economic development. They will be governed by the following principles:

1. **Precautionary.**- Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used by the competent public authorities to postpone the adoption of any measures they consider effective to prevent environmental degradation.
2. **Respect for the rights of nature.** The right to existence, maintenance and regeneration of the vital cycles, structure, functions and evolutionary processes of all ecosystems that make up the Galapagos province will be fully respected.
3. **Restoration.** In case of severe or permanent environmental impact, originated by natural or man-made causes, the State will establish the most effective mechanisms to achieve the restoration of the Galapagos ecosystems and adopt the most appropriate measures to eliminate or mitigate the adverse environmental effects notwithstanding the obligation of the causers, in accordance with the Constitution and laws on the matter, to repair, restore and compensate those who depend on the affected systems.
4. **Limitation of activities.** The State will restrict activities that may lead to the extinction of species, ecosystem destruction or alteration of the natural cycles of the Galapagos ecosystems.
5. **Strict liability.** Those deemed to be the cause of the situation shall have the obligation to restore and compensate the environmental damage they cause, even when these are executed in the exercise of a right or through an administrative authorization. In the understanding and treatment of offenses it will not be considered the intent or will of the

individual that generated the damage. The State should act immediately and in a subsidiary manner, to ensure the health and the ecosystems' restoration, in addition to the corresponding sanction against the entity liable for the damage caused.

This article and its described numerals govern all activity on socio-economic development and nature conservation.

**Title II** establishes the province's Institutional Regime, and determines the functions and duties of public institutions in the Galapagos province as follows:

- **Galapagos Government Council (CGREG, in Spanish)**, the highest authority for planning, resource management and organization of activities on the islands. It consists of: (1) A representative of the President of the Republic; (2) The Ecuadorian Environment Ministry; (3) The Ecuadorian Tourism Ministry; (4) The Ecuadorian Ministry of Agriculture, Livestock, Aquaculture and Fisheries; (5) SENPLADES; (6) Mayors of the three Municipalities of the Archipelago and (7) President of the Floreana parish.
- **Technical Secretary of the Galapagos Government Council**, is the body responsible for implementing the resolutions and agreements adopted by the plenary of the Government Council.

**Art. 5 Powers of the Government Council**, for the fulfillment of its objectives, the Government Council for the Galapagos Province Special Regime shall have the following powers:

1. To issue general guidelines and standards for the exercise of jurisdiction of use and management of the land in the province in coordination with local governments, **except for protected areas**.

The Galapagos National Park Directorate continues to be responsible for the management of protected areas through its Management Plan.

2. To exercise a decentralized national system of environmental management, in the scope of its powers i.e. the environmental management of the province, as part of the planning of the province. In order to exercise its powers, it must be accredited by the National Environmental Authority.

This article raises the possibility that the CGREG be credited to the Unified Environmental Management as Responsible Environmental Implementation Authority, which would empower the GCGSR through the Technical Secretary for issuing and controlling environmental permits in his constituency (**except for protected areas**) of which the of the Galapagos National Park Directorate remains responsible.

**Art. 17. Area of the Galapagos National Park.** The National Environmental Authority is in charge of defining and updating the area of the Galapagos National Park in accordance with the law.

This article discusses the protection and boundaries of Galapagos protected areas, where the Ecuadorian Environment Ministry maintains relevance, in the same way it has done for 35 years based on the (Ministerial Agreement 0297, published in the Official Gazette the 31<sup>st</sup> of August, 1979), issued at the time by the Ministers of Agriculture and Livestock, Trade and Industry Integration and later updated by the Environment Ministry at the time of its creation.

**Art. 18. Galapagos Marine Reserve.** The Galapagos Marine Reserve is subjected to the category of Marine Reserve, of multiple uses and joint management, according to the Law of Forestry and Conservation of Natural Areas and Wildlife. The integrity of the marine reserve includes all the marine area within a range of forty nautical miles from the baseline of the Archipelago and inland waters.

This article establishes the features and area of the Galapagos Marine Reserve (GMR), which is why it keeps 40 nautical miles from the baseline.

**Art. 19. Special Protection Marine Area.** In order to regulate the transport of toxic or high risk products within this area, a minimum protection area of sixty nautical miles from the baseline of the Archipelago is defined. These limits may be increased in accordance with international agreements and scientific research carried out for this purpose.

This article provides an additional 20 miles for the minimum protection from the transport of toxic or high-risk products. Furthermore, it stresses the possibility of increasing the level of protection according to international agreements and scientific research. Executive Decree No. 959-A of 28 June 1971, Official Gazette No. 265 of July 13th, 1971 remain in effect.

**Chapter II** regulates the administration of Galapagos Province's Natural Protected Areas as follows:

**Art. 20. Decentralized Administrative Unit in charge of protected natural areas of the province of Galapagos.** The National Environmental Authority (Ecuadorian Environment Ministry) will have a Decentralized Administrative Unit in charge of protected natural areas of the province of Galapagos (the GNPD), in whose areas it shall have jurisdiction and competence over the use, management and utilization of natural resources.

This article uses the term Decentralized Administrative Unit, DAU, which is used in the Act in accordance with terminology for the administrative organization of the State. It is clarified that the term decentralized implies greater autonomy to the Galapagos National Park Directorate and Galapagos Biosecurity Agency who will have jurisdiction and competence on the use, management and utilization of natural resources and activities that are performed in these areas.

**Art. 22. Participatory Management Advisory Council (PMAC).** The Advisory Council is a non-binding body of citizen participation and advice on the administration and management of the Galapagos Marine Reserve. Its structure

will be governed by the rules set out in the regulations for that purpose issued by the Galapagos Government Council.

This article creates the PMAC as an instance of citizen participation and non-binding advice for the administration and management of the Galapagos Marine Reserve. The PMAC could perform the same functions as the Participatory Management Board, assisting in decision-making at the Environmental Authority on issues of GMR, and also maintaining the same level of participation in search of consensus of agreements. In this regard it's indicated that decisions always adopted by their level of participation and consensus have been applied, even if not binding.

**Title VI regarding productive activities:** In Chapter I, in reference to fishing and tourism activities:

**Art. 57. Fisheries Zoning.** The Galapagos Marine Reserve Management Plan will define the zoning for usage and permitted fishing activities, which must protect vulnerable and fragile species of the Islands' ecosystems. To this end, it will establish measures, controls and mechanisms to ensure the conservation of ecosystems and the sustainable use of resources.

This article provides control measures and mechanisms for the sustainability of resources. The Marine Reserve Management Plan, issued by the National Environmental Authority and designed in a participatory manner, will define the Zoning for use and permitted fishing activities, which must protect vulnerable and fragile species of the islands ecosystems.

**Art. 60. Fishing registration.** The National Environmental Authority, through the Decentralized Administrative Unit in charge of the protected areas of Galapagos, will be responsible for keeping records of all fishing vessel, including their operations, marketing or supply to fishing vessels within the Galapagos Marine Reserve. Regulation to this law shall establish a system of issuing permits for fishing in the province of Galapagos.

This article provides and states that the National Environmental Authority, through the decentralized administrative unit in charge of the Galapagos protected natural areas (GNPD), will be responsible for keeping a record of all fishing vessel, including their operations, marketing or supplies to fishing vessels within the Galapagos Marine Reserve.

**Chapter II, in reference to touristic activities,** states:

**Art. 62. Competence.** The National Environmental Authority is the competent body to plan, authorize, monitor and supervise the use of protected natural areas of Galapagos for touristic purposes, in coordination with the National Tourism Authority, as provided in the Constitution, the law, the relevant rules and the respective management plans. Within the Galapagos province, it is up to the National Tourism Authority, in coordination with the Galapagos Government Council, to plan, regulate and control the minimum standards of touristic services and perform other relevant duties under the Law of Tourism.

The National Environmental Authority and the National Tourism Authority will jointly issue management policies for strengthening of sustainable tourism in the province of Galapagos, for which they will inform and coordinate with the Galapagos Government Council.

This article provides for the development of sustainable tourism in the province, with the National Environmental Authority as responsible for programing, authorizing, controlling and monitoring touristic uses in protected areas in coordination with the Tourism Ministry.

**Art. 72. Construction of tourists' accommodation infrastructure.** Construction of new tourists' accommodation infrastructure or extending existing infrastructure that does not meet the provisions of the Hospitality Regulatory Plan established by the National Tourism Authority is prohibited.

This article clearly states that there is an **explicit prohibition on the construction of new accommodation infrastructure** or expansion thereof. This prohibition is directed to projects that do not comply with the provisions of the Tourism Authority's Hospitality Regulatory Plan. In which it is mentioned that the law will be implemented on studies of the carrying capacity of the physical environment. These studies should be prepared by the Environmental Authority; for example, the protected areas of the Galapagos National Park do not include as a productive use, in its Management Plan, the implementation of infrastructure of any kind, far less tourist accommodation. These areas only offer visiting facilities, such as elevated walkways, crosswalks, walking paths, lookouts, etc. in areas established by the zoning for public use.

**Title VII, on Environmental Control and Biosecurity, Chapter I on Environmental Control**, determines the following:

**Art. 82. Environmental Authority.** The environmental audit shall be performed by the National Environmental Authority in accordance with the relevant rules, without prejudice to the bodies or agencies in the field, at the national level.

**Art. 83. Prohibitions.** It is expressly prohibited:

1. Dispose of infectious, toxic, radioactive, nuclear waste from any sources.
2. The operation, installation and promotion of new industries that emit polluting liquids, solids and gases difficult to treat or dispose.
3. The permanency of heavy machinery scrap, vehicles and vessel in the terrestrial and marine reserve areas. The Regulations will specify handling of these wastes.
4. Discharge or discard of ballast bilge waste, sewage, garbage, debris or other contaminates into crevices, aquifers within the islands, inland waters, marine reserve, coast or beach areas, without having been treated as stablished in the Regulations. For this purpose, the municipalities shall provide with the appropriate infrastructure.
5. The introduction of exotic organisms to the Islands, in accordance with current standards.



6. The transport by any means, from the mainland to the islands, or abroad and vice versa, of autochthonous geological materials and native animals, including domestic, of any species of fauna and flora.
7. The transport between the islands of indigenous or introduced organisms without the necessary authorizations. Transportation of scientific samples will be authorized, based on what is established by existing national legislation and interagency and international conventions, by the National Environmental Authority, through the Decentralized Administrative Unit, in charge of the Galapagos' Natural Protected Areas.

**Art. 84. Waste management.** It is mandatory for the Maritime cabotage companies, carrying cargo from the Galapagos Archipelago to the Ecuadorian mainland, to transport free of charge inorganic waste of commercial origin and hazardous waste generated in the province of Galapagos, at least three times a year. To this effect, they should coordinate with the relevant Municipal and Autonomous Governments and the Decentralized Administrative Unit in charge of the protected areas of Galapagos.

These articles (art. 82, 83, 84) establish that environmental monitoring will be conducted by the National Environmental Authority, who will perform relevant audits, establishing prohibitions around the disposal of infectious, radioactive, nuclear waste from any sources; the operations and establishment of new industries that issue pollutants difficult to treat; the permanency of heavy machinery scrap and its handling; the disposal and discharge of garbage, waste or other contaminants in crevices, aquifers and inland waters, Marine Reserve and beach areas; the introduction of exogenous organisms, transportation by any means of animal or geological materials and transportation of scientific samples not authorized by the environmental authority.

**Title VII, Chapter II on Biosecurity and Quarantine of the Galapagos province**, determines the following:

**Art. 85. Regulation and control.** The National Environmental Authority, through an attached public entity, shall regulate and control biosecurity; control the introduction of alien species to the province of Galapagos; control and regulate the introduction, movement and dispersal of exotic organisms by any means which jeopardize human health, the economy and agricultural activities in the province; and contribute to the conservation of the ecological integrity of the ecosystems and biodiversity on the islands and in marine environment of the Galapagos province.

This article clearly defines the responsibility of the National Environmental Authority on aspects of biosecurity and quarantine, agencies of regulation and control for Galapagos.

**Title VIII on the Sanction System**, indicates the authority of the Environmental Authority regarding its ability to sanction, as well as the rest of entities that enjoy the same faculty. This has been reinforced in the new law.

Similarly, articles requesting for the cooperation of the armed forces for effective control of protected areas, while recognizing the civil and criminal actions that have to be met when the law is violated in the province of Galapagos stand out. (Reference: Art 86, 87, 88 and 89).

Finally, as a summary it can be mentioned:

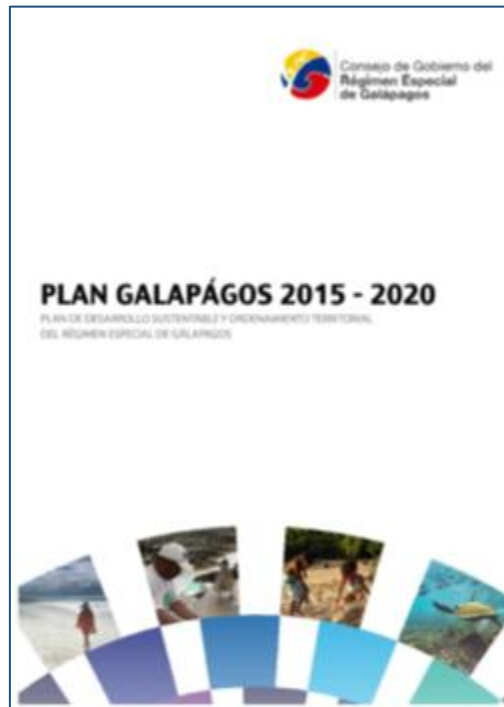
1. The current Special Law does not detract the power of the Galapagos National Park Directorate, on the contrary, strengthens it.
2. The current Special Law does not jeopardize the current boundaries of the National Park and Galapagos Marine Reserve, the limits are maintained, and there is potential for the increase of the protected areas.
3. The current Special Law designates as the Decentralized Administrative Unit the Galapagos National Park Directorate, without this representing a changed in the name of the institution. On the contrary, it strengthens the administrative and management decentralization for opportune action.
4. The current Special Law does not restrict the participation of civil society, it strengthens it and protects it.
5. The current Special Law does not authorize in any of its articles the implementation of "mega hotel infrastructure" in the province of Galapagos.
6. The current Special Law with the Integral Penal Code confers effective legal tools to the public institutions of Galapagos.
7. The current Special Law foresees the possibility of accrediting agencies as CGREG and the Municipalities within the Environmental Management Unique System, being able to grant environmental permits in a decentralized manner.

#### **4.2.- Galapagos Sustainable Development and Land Use Plan**

Another key element that was achieved is the approval of the new sustainable development plan for Galapagos, approved in December 2015. The coming into force of this plan in the Islands will allow joining provincial policies with priority elements of the Islands Good Living. This plan becomes the axis between the institutional management and the national public policy.

The Galapagos Sustainable Development and Land Use Plan, Galapagos Plan 2015 – 2020, was approved by the Galapagos Government Council on December 9<sup>th</sup>, 2015.

**Figure 12. Galapagos Sustainable Development and Land Use Plan**



**Source:** Galapagos Government Council (CGREG). December 2015.

The Galapagos Plan describes the following **Vision** for the Islands:

“Galapagos is a land of peace with inhabitants committed to the conservation of their natural heritage, it guarantees the exercise of Good Living and grants Nature constitutional rights; it favors the interculturality and it allows the fair and equal access to the use and the exploitation of its natural resources in accordance to the biophysical limits of the Archipelago, as such becoming a national and international example on management and governance of a sustainable development model”.

The plan has:

- 5 strategic objectives
- 18 general policies
- 46 strategic guidelines
- 50 goals with their management indicators

The table below explains the five strategic objectives and the general policies for each objective.

**Table 13. Strategic objectives and local policies of the Galapagos Plan 2015 – 2020**

Strategic Objectives	Local Policies
<p>1. To consolidate a sustainable model of the socio-ecosystem of Galapagos</p>	<p>1.1 Implement a model of integrated land management that considers the biophysical limits and guide the non-expansion of human settlements.</p>
	<p>1.2 Promote the sustainable use of ecosystems and natural resources.</p>
	<p>1.3 Promote sustainable patterns of consumption and production that reduce flows of energy and materials from the mainland.</p>
	<p>1.4 Control population growth in line with applicable regulations, and based on scientific information related to biophysical constraints on ecosystems of Galapagos.</p>
<p>2. Promote the Good Living of Galapagos residents and an island style and quality of life</p>	<p>2.1 Promote cultural identity of the Galapagos population, according to their unique environment and gender.</p>
	<p>2.2 Strengthen social cohesion based on the exercise of Good Living rights.</p>
	<p>2.3 Ensure adequate potable water and sanitation, according to the island ecosystem.</p>
	<p>2.4 Ensure access to quality public health services according to the geographical conditions of the Islands.</p>
<p>3. To promote a society of knowledge and the diversification of the productive matrix</p>	<p>3.1 Promote scientific research applied to the sustainable development of the territory and to promote technology transfer.</p>
	<p>3.2 Foster human talent according to labor demand within the territory.</p>
	<p>3.3 Consolidate a social, supportive and sustainable economic system that favors the craft, agricultural and fisheries sectors.</p>
	<p>3.4 Promote ecotourism and equitable distribution of the benefits generated by tourism.</p>
<p>4. Reduce energy dependence from mainland Ecuador, optimizing renewable energy generation, transport and connectivity</p>	<p>4.1 Optimize air, land and sea transport system and the connectivity in the province.</p>
	<p>4.2 Promote the transformation of the energy matrix based on the use of renewable sources</p>
<p>5. Strengthen the governance model of Galapagos</p>	<p>5.1 Consolidate a participatory management model that promotes sustainable development planning to improve governance in the province.</p>
	<p>5.2 Strengthen the transparency systems and tax collection to enhance the equitable</p>

	redistribution of income and the economic and financial sustainability of Galapagos.
5.3	Consolidate a risk management system according to the peculiarities of the territory.
5.4	Strengthen and extend the capabilities of interagency coordination among all government and private entities that are in the territory.

**Source:** Galapagos Government Council (CGREG). December 2015.

Land Use is an essential tool to achieve sustainable development, which comprises a technical-political process aiming to define criteria and indicators for the use of the land and its orderly occupation. This process identifies zones within the islands where certain strategies have been planned for each zone. Each zone is determined and defined according to their geographical characteristics and their potential for sustainable development.

This plan establishes the need to establish a sustainable land use, geared to achieve the following objectives:

- Preserve the natural heritage.
- Establish sustainable processes for human settlements in harmony with the Galapagos National Park and the Marine Reserve.
- Establish the best conditions for Good Living in the Islands without compromising the well-being and the ecological equilibrium.

The zones are classified in accordance to their function and use in:

- Zone 1: Protected area
- Zone 2: Urban area
- Zone 3: Rural area
- Zone 4: Special area

Finally, the management model of the Galapagos Plan is a technical-administrative tool that will allow to put the plan into practice and to meet the long term vision, strategies and objectives, carrying out the programs and projects that result from this planning. For each strategic objective there are strategies that will help formulate the activities that the institution will do to address topics that are not of their competence, or over those that have shared competences with other government levels.

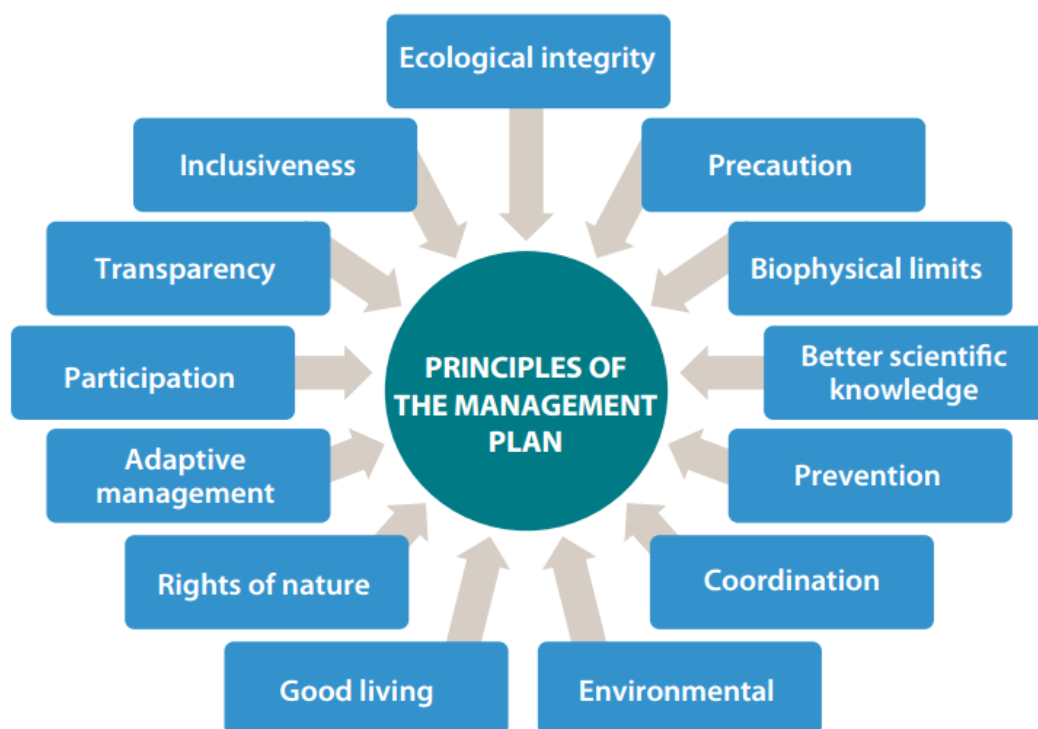
### **4.3.- Management plan for the Protected Areas of Galapagos**

The Management Plan for the Protected Areas of Galapagos for Good Living is a new planning instrument developed between 2011 and 2013, approved by the Ministry of the Environment, by means of the Ministerial Agreement No. 162 from June 9<sup>th</sup>, 2014 (**Annex 12**).

The plan is presented as an innovative management tool that solidifies the recognition of Galapagos as a socio-ecosystem, where successful conservation requires integrated management of the protected areas with the populated zones (rural and urban). This includes acknowledging the capacity of ecosystems and their biodiversity to generate services, and contributing to the recovery of those components that have been altered primarily by anthropogenic causes (invasive species, contaminated aquifers, habitat degradation and fragmentation, among others), in ways that guarantee a sustainable human presence and quality of life or good living.

The Management Plan is based on a shared vision: the Galapagos province achieves good living for the human community by preserving terrestrial and marine ecosystems and their biodiversity through a regional model that integrates protected areas with populated areas. The achievement of this shared vision is based on general principles, which guide, orient, and prioritize decision-making by natural resource managers as well as all other actors involved in the management of the Archipelago.

**Figure 13. Principles of the Management Plan for the Protected Areas of Galapagos.**



**Source:** Management Plan for the Protected Areas of Galapagos for the Good Living, EME 2014.

The Management Plan for the Protected Areas of Galapagos for the Good Living<sup>6</sup> comprises of six (6) major objectives that function through programs.

**Table 13. Objectives and Programs of the Management Plan for the Protected Areas of Galapagos for the Good Living**

Objective	Programs
1. Manage the conservation of Galapagos marine and terrestrial ecosystems and their biodiversity to maintain their ability to generate services.	<ul style="list-style-type: none"> <li>• Conservation and restoration of ecosystems and their biodiversity</li> <li>• Monitoring ecosystems and their biodiversity</li> <li>• Control and surveillance</li> </ul>
2. Incorporate and articulate	<ul style="list-style-type: none"> <li>• Conservation and restoration of</li> </ul>

<sup>6</sup> The following institutions helped drafting the Management Plan:

- Ecuadorian Ministry of Environment (EME)
- Galapagos Government Council (CGREG)
- Provincial Technical Directorate of the Ministry of Agriculture, Livestock, Aquaculture and Fisheries (MAGAP)
- Provincial Technical Directorate of the Ministry of Tourism
- Galapagos Biosecurity Agency (ABG)
- Municipalities of Santa Cruz, San Cristóbal and Isabela and Parish of Floreana

conservation policies for the protected areas into the Plan for Sustainable Development and Regional Planning of the Special Regime of Galapagos to achieve sustainable use of ecosystem services and terrestrial and marine biodiversity.	ecosystems and their biodiversity <ul style="list-style-type: none"> <li>• Monitoring ecosystems and their biodiversity</li> <li>• Control and surveillance</li> </ul>
3. Improve and strengthen the management capacity of the GNP, providing it with the necessary resources for the effective and efficient administration of the protected areas.	<ul style="list-style-type: none"> <li>• Organizational development</li> <li>• Management of environmental information</li> </ul>
4. Promote participatory and inclusive social processes to promote good living and an island culture that exhibits environmental responsibility.	<ul style="list-style-type: none"> <li>• Environmental communication, participation, education and interpretation</li> </ul>
5. Increase and integrate interdisciplinary scientific-technical knowledge focused on the management of the interaction between marine and terrestrial ecosystems with the socio-economic and cultural systems of Galapagos, within the context of global change.	<ul style="list-style-type: none"> <li>• Science of sustainability</li> </ul>
6. Promote national and international cooperation for the conservation of the ecosystems and biodiversity of Galapagos, according to the priorities established by Ecuador in the Plan for Sustainable Development and Regional Planning of the Special Regime of Galapagos.	<ul style="list-style-type: none"> <li>• International relations and cooperation</li> </ul>

**Source:** Management Plan for the Protected Areas of Galapagos for the Good Living, EME 2014.

#### 4.4.- Zoning system of the protected areas

The Galapagos Marine Reserve and the Galapagos National Park management effectiveness evaluations defined the join the management of both protected areas in one planning document. This document will see Galapagos as a social-ecosystem and will help optimize the human, physical and financial resources. This led to the drafting of the Management Plan for the Protected Areas of Galapagos for the Good Living which was approved through the Ministerial Agreement 162 in 2014.

The implementation of the Management Plan will be through the zoning. This was also recognized in the management effectiveness evaluations as one of the



most important components to be worked on as the current zoning for both terrestrial park and marine reserve<sup>7</sup> show inconsistencies regarding their design and implementation. The design of the zoning system of both protected areas started in May 2014 and it should finish in the first quarter of 2016.

The zoning process is being done with the direct participation of the following stakeholders:

1. A technical operative team which involves a coordination unit, one technical team, a cartography unit and a team of communication and participation. This team is supported by consultants and experts as well as NGOs and national and international universities.
2. The Core Team comprising technical staff from: Galapagos Government Council, Ministry of Agriculture, Livestock, Aquaculture and Fisheries, Tourism Ministry, Galapagos Biosecurity Agency, Municipalities of Santa Cruz, Isabela and San Cristóbal.
3. Social stakeholders that use the environmental services of the protected areas: fishing sector, Tourism Chamber, naturalist guides, agricultural and livestock associations, surf clubs, loggers, interisland transport, among others. The participation of these social stakeholders is in three phases: 1) approach, 2) participation, and 3) socialization. At the moment, the process is in its second phase which intends to gather input from the different user groups regarding the zoning proposal drafted by the GNPD<sup>8</sup>.

The progress made so far is listed in the following table.

**Table 14. Advances made in the zoning process of the protected areas of Galapagos**

Activity	Progress
1. Drafting of objectives	The objectives were based in the vision and principles of the Management Plan for the Protected Areas of Galapagos for the Good Living.
2. Drafting and identification of the ecosystems and environmental units.	All of the eight ecosystems and their environmental units within Galapagos have been identified and described. This was revised by the technical team and the Core Team.
3. Creation of the maps	There is a database with qualitative information and geographical information (over 300

<sup>7</sup> The current zoning is from the Galapagos Marine Reserve Management Plan published in 2005.

<sup>8</sup> Other important partners are the board members of: CGREG, EME, MINTUR, MAGAP, Parishes, Municipalities, INOCAR, ABG, SENPLADES, Undersecretary of Transport and SENESCYT.

Activity	Progress
	biophysical and socio-economic layers). 90% progress.
4. Identification of the environmental services	The matrix with the environmental services was updated. This was done by the technical team and the Core Team.
5. Definition of zones, objectives and uses	<ul style="list-style-type: none"> <li>• There is a zoning proposal:               <ol style="list-style-type: none"> <li>1. Transition;</li> <li>2. Sustainable exploitation;</li> <li>3. Conservation and</li> <li>4. Intangible.</li> </ol> </li> <li>• For each of these zones there are objectives and the uses that may take place there.</li> <li>• Each use has its definition and management tools that complement the zoning. There are also regulations that regulate those uses. A document was drafted which was revised by the Core Team.</li> </ul>
6. Definition of biophysical and socio-economic criteria	There are biophysical and socio-economic criteria for each one of the zones. This was done according to the principles proposed for the Great Barrier Reef and as part of the results of the workshop with Seasketch.
7. Participation process	<ul style="list-style-type: none"> <li>• Meeting with the strategic partners (Signing of the document with the compromise for interinstitutional work).</li> <li>• Meetings with the municipalities of Isabela, San Cristóbal and Santa Cruz.</li> <li>• Working sessions with the Technical offices of the GNPD in Isabela, San Cristóbal and Santa Cruz.</li> <li>• End of the approaching phase which had the participation of over 285 representatives of the different stakeholder groups from Isabela, San Cristóbal and Santa Cruz.</li> <li>• Start of the second phase. To date there has been 5 workshops with the participation of 91 people.</li> </ul>
8. Communication process	<ul style="list-style-type: none"> <li>• Design of a logo</li> <li>• Design of 40 types of posters with the environmental services from the ecosystems of Galapagos</li> <li>• Environmental services banners</li> <li>• Zoning t-shirts</li> <li>• 500 folders with information of the ecosystem</li> </ul>

Activity	Progress
	services <ul style="list-style-type: none"> <li>• Two videos on the ecosystem services for TV, social media and web</li> <li>• Three videos with children stating the importance of conserving Galapagos</li> <li>• Meeting with the local media and communication teams of partner institutions (CGREG, Municipality of Santa Cruz, MAGAP, ABG)</li> <li>• Social media input for three months on environmental services and zoning.</li> <li>• Radio spots with information on environmental services.</li> <li>• Printed material to be delivered during the workshops in the second phase.</li> </ul>
9. Conducting evaluation and diagnostics	The following studies were conducted: <ul style="list-style-type: none"> <li>• Diagnosis of the land zoning of the GNP.</li> <li>• Diagnosis of zoning of the GMR.</li> <li>• Evaluation of the management effectiveness of Ecotourism Public Use Network of the Protected Areas Galapagos.</li> </ul>
10. Incorporation of the concept of zoning in Galapagos Sustainable Development and Land Use Plan	<ul style="list-style-type: none"> <li>• Many technical meetings were held with the Galapagos Government Council to include the zoning and to visualize Galapagos as one single territory.</li> <li>• Analysis of the inclusion of the proposed zoning in the Galapagos Sustainable Development and Land Use Plan.</li> </ul>
11. Zoning proposal	<ul style="list-style-type: none"> <li>• There is a proposal which has the technical information of each polygon: location, code, latitude and longitude, management actions, introduced species, ecosystems and environmental units, key species, tourist sites.</li> <li>• This proposal is under revision by the Core Team and the different stakeholders.</li> <li>• Once the polygons for the conservation zones will be established the intangible zones will be defined.</li> </ul>

**Source:** Ecosystems Unit, GNPD. December 2015.

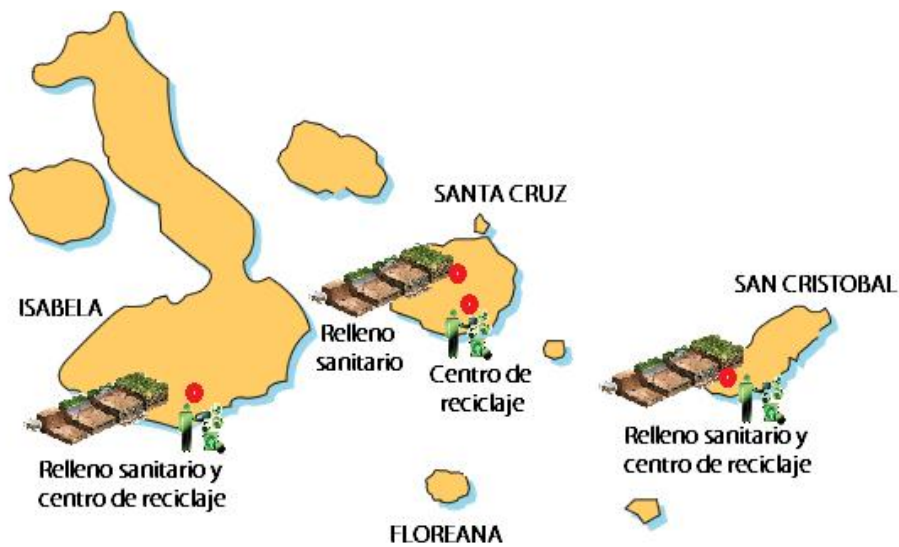
The zoning process is in its final stages. It is expected that in the next few months the final results will be presented to the stakeholders and authorities. Finally, the last phase of the zoning ensures that through participatory processes the conservation and management objectives will be met and kept.

## 5. SOLID WASTE

### 5.1 Final disposal of solid waste

The solid waste generated in the Galapagos Islands goes through a recycling process. The solid waste that cannot be recycled is disposed of in landfills. Currently, there are three landfills and recycling centers. These landfills and recycling centers are located in the three main inhabited islands in the Archipelago (San Cristobal, Santa Cruz and Isabela)<sup>9</sup>.

**Figure 15. Landfills and recycling centers for solid waste on the Galapagos Islands**



<sup>9</sup> At the Floreana Island there still no formal landfill or recycling center.

**Table 15. State of the solid waste dumps in Galapagos**

<b>Island</b>	<b>Dump</b>	<b>Location</b>	<b>Area</b>
Santa Cruz	Santa Cruz' Landfill	Puerto Ayora Kilometer 27, towards Canal Itabaca. Next to the old garbage dump	3.7 hectares
	Fabricio Valverde's recycling center	Kilometer 4 Towards Canal Itabaca	Less than 1 hectare
San Cristóbal	San Cristóbal's recycling center and landfill	Towards El Progreso	5.8 hectares
Isabela	Isabela's landfill	Kilometer 10, towards Santo Tomas de Berlanga. El Mango Puerto Villamil sector.	Less than 1 hectare
	Recycling center		

**Source:** Environmental Management Unit, GNPD. Landfills Report, April 2015

With the exception of Fabricio Valverde Recycling Center, on Santa Cruz, all garbage dumps hold current Environmental Licenses and Management Plans approved by the Ecuadorian Environment Ministry. Thus ensuring optimal management of waste generated in the islands.

The Fabricio Valverde recycling center is the process of obtaining its license by the EME, with specific observations that must be resolved in order to comply with the Galapagos environmental legislation.

**Table 15. Galapagos Islands solid waste landfills status.**

Island	Dump	Environmental License approved	Approval resolution
Santa Cruz	Santa Cruz's Landfill	Yes <sup>A</sup>	Resolution No. 013
	Fabricio Valverde's recycling center	No <sup>B</sup>	NA
San Cristóbal	San Cristóbal's Landfill	Yes <sup>C</sup>	Resolution No. 091
Isabela	Isabela's Landfill	Yes <sup>D</sup>	Resolution No. 052
	Recycling center	Yes <sup>D</sup>	Resolution No. 684

**Source:** Environmental Management Unit, GNPD. Landfills Report, April 2015

**A:** This landfill has the environmental compliance audit, ECA, approved by the Ecuadorian Ministry of Environment by means of the letter No. MAE-PNG / DIR-2015-0002 from January 2015.

**B:** The Recycling Center is in the process of environmental licensing.

**C:** Environmental authorities conducted a physical inspection and monitoring PMA in July 2014. Through the Technical Report No. 298-2014-GC / UTSC-DPNG, the improvement actions required for the landfill were stated.

**D:** Environmental authorities conducted a physical inspection and monitoring PMA in October 2013. Through letter the improvement actions required for the landfill and recycling center were stated.

**NA:** Not applicable

We must stress that the GNPD typically track and monitor the actions taken in landfills and recycling centers, which are referred to in the environmental license, which is mandatory for the municipal governments of the islands.

Finally, the fact remains that the municipalities of the province, led by Santa Cruz, have driven strong campaigns to encourage recycling and to establishing

a culture of waste separation. Recycling campaigns have allow for large quantities of usable waste to be recovered, however, difficulties in transporting the waste from the islands to the mainland represented an obstacle to complete the job of removing solid waste from Galapagos. In this situation, the Ecuadorian Environment Ministry intervened and coordinated with a group of managers of solid waste (REPAPERS, NOVACERO, CRIDESA, ENKADOR), in order to ensure the removal of waste in an appropriate manner and at a fair cost for the Municipalities of Galapagos.

## 6. ANNEXES

Annex No. 1:	Register in SIPEIP: Guayaquil Loading Dock Investment Project
Annex No. 2:	Guayaquil Loading Dock Designs
Annex No. 3:	GNPD Resolution No. 050
Annex No. 4:	Environmental Checklist for vessels
Annex No. 5:	Resolution D-ABG-013-011-2013 ABG
Annex No. 6:	Resolution D-ABG-013-012-2013 ABG
Annex No. 7:	Resolution D-ABG-014-012-2013 ABG
Annex No. 8:	Checklist for hull and deck ABG
Annex No. 9:	Executive Order creation ABG
Annex No. 10:	Agreement GNPD - CECFLOR
Annex No. 11:	Resolution 030- CGREG-04-IX-2015 CGREG
Annex No. 12:	Ministerial decree No. 162