

*Please provide the following details on the origin of this report.*

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Signature of officer responsible for submitting national report:	
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*Please provide summary information on the process by which this report has been prepared, including information on the types of stakeholders who have been actively involved in its preparation and on material which was used as a basis for the report.*

National Report is an effort of both Oficina Técnica de Biodiversidad-OTECBIO- (Technical Office of Biodiversity) under the umbrella of the Consejo Nacional de Áreas Protegidas-CONAP- National Council of Protected Areas-, and the BIOTAS group (Asociación Guatemalteca para el Estudio de la Biodiversidad, Taxonomía y Sistemática) Guatemalan Association for the Study of Biodiversity, Taxonomy and Systematics-.

The main task of the Technical Office of Biodiversity –OTECBIO- “is to facilitate and develop the National Biodiversity Strategy and to follow up the Convention on Biological Diversity Programs”.

BIOTAS is a recently founded taxonomic group, that wishes to speed up the taxonomy development in Guatemala through creation of initiatives related to the taxonomic goals. Members of the group have conducted research on insects, plants, mammals, birds and many other taxonomic groups. Their members work at Universities (San Carlos and Del Valle mainly) or research centers CECON (Centro de Estudios Conservacionistas) -Conservation Studing Centre-

With the help of BIOTAS, OTECBIO prepared the GTI National Report thus starting a long term cooperation.

**REPORT ON IMPLEMENTATION OF PROGRAMME OF WORK FOR THE  
GLOBAL TAXONOMY INITIATIVE**

**Programme of Work for the Global Taxonomy Initiative  
Annex to Decision VI/8**

**Operational Objective 1. Assess taxonomic needs and capacities at national, regional and global levels for the implementation of the Convention**

1. Has your country undertaken any taxonomic needs assessments and identified priorities in this regard?	
a) no (please specify the reasons)	
b) no, but assessment is under way	X
c) yes, some needs assessments made (please provide details)	
d) yes, comprehensive assessments made (please provide details)	
Further comments on country-based taxonomic needs assessments and identification of priorities	
<p>INBIO (National Institute of Biodiversity from Costa Rica) has assessed the current state of Taxonomy in Central America. A preliminary diagnosis of taxonomic research institutions and expertise of their members is presented. Taxonomists pointed out that Government support is not enough to strengthen both capabilities and infrastructure. BIOTAS was created to fill this gap and to try to develop capabilities concerning taxonomy.</p>	
2. Has your country worked with other countries in the region to undertake regional taxonomic needs assessments and identify priorities in this regard?	
a) no (please specify the reasons)	
b) no, but some collaborative projects are being considered or planned	
c) yes, some activities undertaken (please provide details)	X
d) yes, many activities undertaken (please provide details)	
Further comments on regional taxonomic needs assessment and identification of priorities	
<p>Some efforts have been done, namely, to strengthen capabilities and establishment of links through creating the Meso-American and the Caribbean Herbaria network.</p> <p>The MESOAMERICA NET initiative, supported by the Global Network Taxonomy, tries to develop a Regional Network. It contains current and past information focusing on taxonomy in Mesoamerica (Central America and Mexico). It is also a Clearing House Mechanism.</p> <p>There are other initiatives to collaborate with other herbaria (Missouri and Panama). Collaboration is focused on information, research, and specimen exchange.</p>	

3. Is your country involved in any activities as part of a global taxonomic needs assessment?	
a) no	X
b) yes (please provide details)	
Further comments on the involvement in the activities for the global taxonomic needs assessment	
Currently no, but GEF (Global Environmental Facility) will support the project "Establishment of National Priorities and gap evaluation to create biodiversity capabilities on Guatemala" and this includes a Programm to Assess and Monitor the State of Taxonomy in Guatemala.	
4. Is your country undertaking any activities of public education and awareness to promote the implementation of the programme of work for the GTI?	
a) no	X
b) yes, some programmes developed and some activities undertaken (please provide details)	
c) yes, comprehensive programmes developed and many activities undertaken (please provide details)	
Further comments on public education and awareness programmes and activities	
No.	
There is not enough information on this regard. Del Valle University and CDC (Conservation Data Centre) have conducted research projects on taxonomy in protected areas (public and private ones), as well as parataxonomist's training and rapid ecological assessments. These technicians have to teach visitors about protected areas.	

***Operational objective 2. Provide focus to help build and maintain the systems and infrastructure needed to obtain, collate and curate the biological specimens that are the basis for taxonomic knowledge***

5. Is your country working to strengthen global and regional capacity building to support access to and generation of taxonomic information <sup>1</sup> ?	
a) no (please specify the reasons)	
b) no, but some programmes under development	X
c) yes, limited capacity building (please provide details)	
d) yes, significant capacity building (please provide details)	
Further comments on global and regional capacity building to support access to and generation of taxonomic information	
Some institutions (herbaria and information centers) have worked isolated. Most of the cases have had international funding.	

<sup>1</sup> Responses to question 5 are expected to focus on, but not limited to (a) human capacity building; (b) infrastructure capacity building.

6. Is your country working with other countries to create and/or strengthen the networks for regional cooperation in taxonomy?	
a) no	
b) no, but consultation is under way	X
c) no, but some plans and programs are under development	
d) yes, some activities undertaken for this purpose (please provide details)	
e) yes, comprehensive activities undertaken for this purpose (please provide details)	
Further comments on strengthening of existing networks for regional cooperation in taxonomy	
<p>There are some initiatives such as "Red Mesoamericana de Recursos Bióticos", which tries to develop a network focused on biological resources.</p> <p>The MESOAMERINET initiative, which is attempting to create a data base with all current and past taxonomic information on Central America and Mexico, in the sense of a Regional Clearing House Mechanism.</p> <p>The "Red de Herbarios de Mesoamerica y el Caribe", is another regional initiative to strengthen the collaboration between Herbaria in Central America. It was created in 1996 and has done some projects to assess plant collections and to identify gaps in botanical information in the region.</p>	

**Operational objective 3. Facilitate an improved and effective infrastructure/system for access to taxonomic information, with priority on ensuring that countries of origin gain access to information concerning elements of their biodiversity**

7. Is your country involved in the development of a coordinated global taxonomy information system, in particular the infrastructure to access digitized data/information?	
a) no	
b) no, but some plans are being considered	x
c) yes, to a limited extent (please provide details)	
d) yes, to a significant extent (please provide details)	
Further comments on involvement in the development of a coordinated global taxonomy information system	
<p>No, because it is really expensive to digitalize the collections, and there has not been funding available. Information regarding all Guatemalan mammal collections is being digitalized (with support of FONACON -National Conservation Fund-) to strengthen management in Protected Areas.</p> <p>Herbarium UVAL has a partial data base of its collection.</p>	

**Operational objective 4. Within the major thematic work programmes of the Convention include key taxonomic objectives to generate information needed for decision-making in conservation and sustainable use of biological diversity and its components**

8. Has your country made any taxonomic studies and inventories at the national level, which provide a basic assessment of forest biological diversity, in particular in areas under current threat for habitat conversion, or of high conservation value?	
a) no (please provide the reasons)	
b) no, but some programmes are under development	x
c) yes, some studies and inventories made (please provide details)	x
d) yes, comprehensive studies and inventories made (please provide details)	
Further comments on taxonomic studies and inventories made for a basic assessment of forest biological diversity	
National institutions, such as CECON (Conservation Studing Centre), and universities, such as UVG (Del Valle University of Guatemala), are starting to develop this kind of studies. Specifically, UVG participated in a project focusing on identifying gaps on Central America botany information. This project was funded by WWF and Costa Rican National Museum of History. One study involved 32 cloud forest areas using passalid beetles as organisms indicative of endemism. On this basis 8 endemic areas were identified for northern nuclear mesoamerica. Some studies have been done with Lepidoptera and Scarabaeidae concerning forest quality.	
9. Has your country undertaken any taxonomy-related activities relating to marine and coastal biodiversity, in particular taxonomic work related to identification of ballast water organisms and monitoring health of mangrove systems through their invertebrate fauna?	
a) no	X
b) not applicable	
c) no, but some programmes are under development	
d) yes, some activities undertaken (please provide details)	
e) yes, many measures undertaken (please provide details)	
Further comments on taxonomy-related activities identified in the programme of work on marine and coastal biodiversity	
10. Has your country developed taxonomic support for implementing relevant actions identified in the programme of work on dry and sub-humid lands biodiversity, in particular identification of key indicator taxa like lichens?	
a) no (please provide reasons and plans for improvement)	
b) not applicable	
c) no, but some programmes are under development	X
d) yes, some activities undertaken (please provide details)	
e) yes, many activities undertaken (please provide details)	
Further comments on taxonomic support for implementing the programme of work on dry and sub-humid lands biodiversity	

<p>Dry and sub-humid lands have been considered as deserts and without interesting biodiversity, but recent programs have shown high biodiversity.</p> <p>Some studies have been conducted by the School of Biology, CDC (Conservation Data Centre) and School of Agronomy, all belonging to San Carlos University.</p> <p>UVAL Herbarium (at Del Valle University) has done ethnobotanical studies in the area.</p>	
<p>11. Has your country developed taxonomic support for implementing relevant actions identified in the programme of work on inland waters biodiversity, in particular regional guides to freshwater fish and invertebrates as an input to ecosystem monitoring for river and lake health?</p>	
a) no	
b) no, but some programmes are under development	X
c) yes, some activities undertaken (please provide details)	
d) yes, many activities undertaken (please provide details)	
<p>Further comments on taxonomic support for the implementation of the programme of work on inland waters biodiversity</p>	
<p>Some activities on taxonomy have been developed by MAGA (Ministry of Agriculture, Livestock and Food), throughout UNIPESCA (Fish Unity of MAGA), focusing on fishery. Other studies related to water quality have been conducted by other environmental NGOs such as Defenders of Nature and Foundation for the Eco-Development.</p> <p>NGOs: Defender of Nature (FDN), Foundation for the Eco-Development (FUNDAECO), Foundation Mario Dary (FUNDARY), and many others have developed water quality on the Protected Areas that they manage.</p> <p>Universities: San Carlos University (USAC) specifically, the School of Biology, CEMA (Center of Marine and Aquaculture studies) and CECON (Conservation Studing Center) have developed studies on Pacific Mangroves communities, shrimp diversity, inventory of fish on the Atlantic Coast and Biotopo Chocón Machacas, Río Dulce, Izabal. In addition, Del Valle University continues monitoring lakes such as Atitlán (in alliance with TNC) , Petén Itzá, and Yaxhá.</p> <p>Watershed Authorities: AMSA (Authority of Sustainable Management of Amatitlán watershed Lake ), AMASURLI (Authority of Sustainable Management Watershed of Izabal Lake and Río Dulce) and AMSCLAE (Authority of Sustainable Management Atitlán Watershed and surroundings) have developed water monitoring on watersheds.</p>	

<p>12. Has your country undertaken any taxonomy-related activities identified in the programme of work on agricultural biodiversity as well as relevant activities identified in the International Pollinator Initiative and the International Soil Biodiversity Initiative?</p>	
a) no	X
b) no, but some activities are being planned	
c) yes, some activities undertaken (please provide details)	
d) yes, comprehensive activities undertaken (please provide details)	
<p>Further comments on taxonomy-related activities for the implementation of the programme of work on agricultural biodiversity</p>	
<p></p>	

13. Is your country developing any taxonomic support for the implementation of the programme of work on mountain biodiversity, in particular identification of biodiversity components unique to mountain ecosystems?	
a) no	
b) no, but some programmes are under development	X
c) yes, limited support (please provide details)	
d) yes, significant support (please provide details)	
Further comments on taxonomic support for the implementation of the programme of work on mountain biodiversity	
<p>There are many studies developed as follows:</p> <ol style="list-style-type: none"> <li>1. Del Valle University (UVG) has developed many studies on insect mountain communities (Passalidae inventory). Flora studies in the Guatemalan highlands and volcanoes have been supported by CONCYT (National Council of Science and Technology), TNC (The Nature Conservancy)/AID (United States International Development Agency) as part of the Parks in Peril program. UVAL Herbarium also has a collection of plants of the Sierra de los Cuchumatanes, developed by Gerald Islebe.</li> <li>2. BIGUA Herbarium of USAC (San Carlos University) has developed many flora inventory studies on Sierra de las Minas, Sierra de los Cuchumatanes, Cadena Volcánica and Cerro San Gil. All these studies were carried out by Mario Véliz.</li> <li>3. CDC, has developed fauna and flora inventories on Volcanic Chain, Sierra de los Cuchumatanes, Cerro San Gil, Alta and Baja Verapaz. Recently they have begun to study Musarañas and mammal ecto-parasites. At the same time they had developed studies on small mammals on Trifinio (nearest El Salvador and Honduras borders),</li> <li>4. There are still many areas without any research, especially where social pressure on the use of natural resources is high, for example the southern slopes on Tajumulco volcano, in the San Marcos department.</li> </ol>	
14. Has your country developed taxonomic support for the implementation of the programme of work on protected areas?	
a) no	
b) no, but some programmes are under development	
c) yes, some programmes in place and are being implemented (please provide details)	X
d) yes, comprehensive programmes are being implemented (please provide details)	
Further comments on taxonomic support provided to the implementation of the programme of work on protected areas	
<p>There are few studies developed on Protected Areas supported by CONCYT (National Council of Science and Technology). The Nature Conservancy, in alliance with Del Valle University (UVG), has funded the creation of a network of Private Protected areas where flora inventories are currently being carried out in the mountainous areas and dry areas of Guatemala. Also, UVG Herbarium and Arthropod Collection have done some research in the Petén area.</p> <p>The Biology School at San Carlos University has developed some studies as well.</p>	



**Operational objective 5. Within the work on cross-cutting issues of the Convention include key taxonomic objectives to generate information needed for decision-making in conservation and sustainable use of biological diversity and its components**

15.Has your country taken any measures to strengthen capacity for the inventory and classification of biodiversity and its components in the development of a national strategy on access and benefit-sharing?	
a) no	X
b) no, but some programmes are under development	
c) yes, some measures taken (please provide details)	
d) yes, comprehensive measures taken (please provide details)	
Further comments on the measures to strengthen capacity for the inventory and classification of biodiversity and its components in the development of a national strategy on access and benefit-sharing	

16.Has your country developed taxonomic support to address the issues of invasive alien species?	
a) no	
b) no, but relevant policy and programme under development	X
c) yes, some policies and programmes in place (please provide details)	
d) yes, comprehensive policies and programmes in place (please provide details)	
Further comments on taxonomic support to address the issues of invasive alien species	
MAGA (Ministry of Agriculture, Livestock and Food) has done some research on invasive weeds. A comprehensive list of species is being prepared supported by IABIN (Inter American Biological Network) and Technical Office of Biodiversity-OTECBIO-.	
17.Has your country developed taxonomic information system to support the maintenance, preservation and protection of traditional knowledge, innovations and practices of indigenous and local communities in accordance with Article 8(j) and related provisions?	
a) no	
b) not applicable	
c) no, but some programmes are under development	X
d) yes, some activities undertaken but a system is not in place yet (please provide details)	
e) yes, a taxonomic information system in place (please provide details)	
Further comments on the taxonomic information system to support the maintenance, preservation and protection of traditional knowledge, innovations and practices of indigenous and local communities	
There are isolated efforts to protect traditional knowledge. The National Commission of Medicinal Plant (CONAPLAMED) has done some research. The Del Valle University Herbarium has ethnobotanical information on various areas of the country (highlands, Petén, dry areas, Caribbean).	

18. Has your country undertaken any taxonomy-related activities that support the implementation of the ecosystem approach and the work in the field of assessments, monitoring and indicators?	
a) no	
b) no, but some programmes are under development	
c) yes, some programmes in place (please provide details)	X
d) yes, comprehensive programmes in place (please provide details)	
Further comments on programmes and activities to support the implementation of the ecosystem approach and the work in the field of assessments, monitoring and indicators	
WCS (Wild Conservation Society) has developed a monitoring program on Selective Forest Extraction in Reserva de Biósfera Maya, Petén.	
Del Valle University, with funding from TNC/AID, has been monitoring biodiversity in the mountainous areas of Atitlán, including protected volcanoes and private protected areas.	

***If your country wishes to provide additional information on implementation of this programme of work, please do so in the following space***

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