



ASEAN CENTRE
FOR BIODIVERSITY



Global Taxonomy Initiative
**REGIONAL ACTION PLAN
FOR SOUTHEAST ASIA
2017–2025**



THE REGIONAL ACTION PLAN

The 1992 Earth Summit in Rio de Janeiro gave birth to the Convention on Biological Diversity (CBD). The three goals of this convention — conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of the benefits arising from the use of genetic resources — have become prime points on the political agenda of most of the world's governments. Achieving these goals depends largely on our understanding of biodiversity. Yet, in many countries of the world, particularly in the tropics, many species remain poorly known or undescribed and unnamed. Taxonomy, the science of describing, naming, and classifying organisms, has been hampered by the shortage or lack of expertise at regional or local levels leading to the worldwide efforts of addressing this concern through the Global Taxonomy Initiative (GTI). In fact, a summary report of the First GTI Workshop in Asia stated, “it was a global consensus that no single country has the expertise or funding to fully document its biodiversity, although as a basis for sustainable management of resources, and to ensure adequate access to these genetic resources and the protection of rights at national and sub-national levels (CBD Art. 15), adequate knowledge in taxonomy is vital” (Wilson et al., 2003).

Taxonomic classifications of these biological resources, therefore, will be vital; first, in the comprehensive identification of these potential resources, and second, in the formulation of suitable mechanisms that will regulate industrial and commercial utilization and production of these resources to ensure use efficiency and sustainability in the future, in compliance with the CBD and the attainment of the Sustainable Development Goals (SDGs). It will also protect and strengthen the cultural identity, spiritual values, and appreciation of biodiversity among the peoples of ASEAN Member States (AMS) while boosting opportunities for livelihood, business, ecotourism, education, and research in the region. Ultimately, it will contribute significantly to the global efforts to meet the SDGs 2030 on the environment and achieve a significant reduction in the rate of biodiversity loss by 2025.

The lack of trained human resources and inadequate capacities on taxonomy has been stressed as one of the obstacles in the implementation of CBD commitments, especially in the ASEAN region. ASEAN's dynamic growth in recent years has increased the pressure on its natural resources. Human activities, the driving force behind the regional growth, threaten biological resources. Lack of scientific information on biodiversity in the region is a crucial issue in the assessment and prediction of biodiversity changes, caused mainly by the lack of taxonomic capacity in data collection and analysis.

The CBD in its Ninth Meeting of the Conference of the Parties (COP 9) has recognized that the global taxonomic impediment constrains the global biodiversity agenda. In response, a GTI Regional Action Plan for South East Asia 2010–2015 was developed by the AMS with China, Japan, and Korea through the ACB. The action plan served as the roadmap in addressing the GTI as implemented in the ASEAN region.

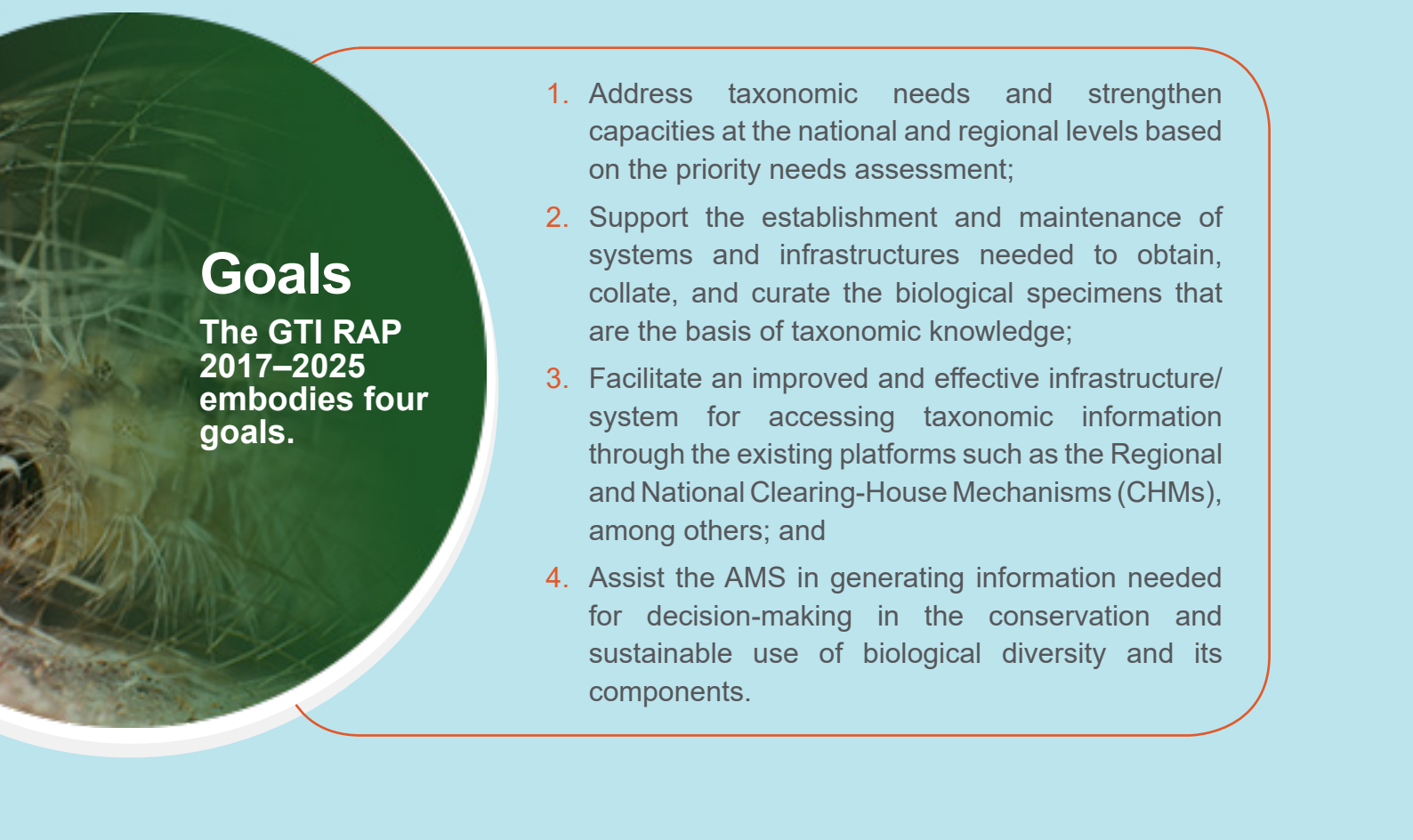
This Regional Action Plan 2017–2025 is a continuation of the first regional action plan 2010–2015 and was developed through a workshop with GTI national focal points, some members of the ACB Scientific Advisory Committee, and prominent taxonomists of the ASEAN Member States as participants. The current RAP 2017–2025 will also serve as the roadmap for taxonomy in the region for the next eight years.



Purpose of the GTI RAP 2017–2025

The GTI Regional Action Plan 2017–2025 shall serve as the roadmap for ASEAN Member States to address the taxonomic impediment in the region. Specifically, the GTI RAP 2017–2025 shall:

1. Guide GTI national focal points in planning activities related to taxonomy;
2. Serve as an instrument in seeking funds for its implementation and other related activities; and
3. Help identify activities that will contribute to the achievement of Aichi Biodiversity Targets 12 (species extinction) and 19 (science-based information and transfer).



Goals

The GTI RAP
2017–2025
embodies four
goals.

1. Address taxonomic needs and strengthen capacities at the national and regional levels based on the priority needs assessment;
2. Support the establishment and maintenance of systems and infrastructures needed to obtain, collate, and curate the biological specimens that are the basis of taxonomic knowledge;
3. Facilitate an improved and effective infrastructure/ system for accessing taxonomic information through the existing platforms such as the Regional and National Clearing-House Mechanisms (CHMs), among others; and
4. Assist the AMS in generating information needed for decision-making in the conservation and sustainable use of biological diversity and its components.

GOAL 1

Address taxonomic needs and strengthen capacities at national and regional levels based on priority needs assessment.

Objectives:

- 1.1. Identify taxonomic priorities of each AMS and the ASEAN region through needs assessment.
- 1.2. Enhance the taxonomic capacity of the AMS.
- 1.3. Increase public awareness of the AMS on taxonomy.

Objectives	Strategic Actions	Specific Actions	Timeline
1.1. Identify taxonomic priorities of each AMS and the ASEAN region through needs assessment	1.1.1. Assess taxonomic needs and identify gap priorities of the AMS	1.1.1.1. Conduct consultation workshops for specific target sectors (agriculture, forestry, fisheries, etc.), government and non-government organizations, including academe, policy-makers, indigenous and local communities, and others.	2017-2020
		1.1.1.2. Prepare National Taxonomic Needs Assessment Report.	2017-2020
	1.1.2. Assess taxonomic needs and identify gap priorities of the region	1.1.2.1. Conduct consultation workshops to facilitate sharing and identification of taxonomic priorities by experts on taxonomy from ASEAN.	2018-2020
		1.1.2.2. Prepare a Regional Taxonomic Needs Assessment Report.	2018-2020
1.2. Enhance the taxonomic capacity of the AMS	1.2.1. Develop and implement human capacity building program on taxonomy for AMS	1.2.1.1. Conduct national and international training courses, internships, fellowship programs, etc.	2017-2025
		1.2.1.2. Conduct para-taxonomic trainings.	2017-2025
		1.2.1.3. Conduct taxonomic research.	2017-2025
		1.2.1.4. Sponsor graduate studies on taxonomy.	2017-2025
		1.2.1.5. Create scholarships for graduate studies.	2017-2025
		1.2.1.6. Leverage support for graduate studies scholarships.	2017-2025
		1.2.1.7. Develop training modules on the use of existing tool kits e.g species identification, species image recognition, and others.	2017-2025
		1.2.1.8. Facilitate exchange programs for taxonomy students and taxonomy practitioners between universities, herbaria, and other research institutions.	2017-2025
		1.2.1.9. Encourage local staff to attend national and international symposiums on taxonomy.	2017-2025
		1.2.1.10. Conduct training course on methodology assessment for identification of conservation status for national and international red data lists.	2018-2025
		1.2.1.11. Build capacity in DNA barcoding and phylogenetic research.	2018-2025
		1.2.1.12. Conduct training on specimen collection processes (e.g photography, field notes, DNA material, and others).	2018-2025
		1.2.1.13. Craft a Communication, Education, and Public Awareness (CEPA) Plan on Taxonomy - Produce CEPA materials - Translate and popularize technical documents on taxonomy - Develop mobile applications for taxonomy - Promote taxonomy on various channels (social media, print, broadcast, online, and others) - Promote of taxonomy through celebrity endorsers - Consider edutainment in production of CEPA materials - Produce audio-visual materials - Promote Citizen Science on biodiversity appreciation and conservation - Promote iconic species to inspire various stakeholders to do conservation activities/actions - Produce events (festivals) to celebrate taxonomy and biodiversity	2017-2019
		1.2.1.14. Develop policy briefs and strategies for taxonomy at the national level	2018-2025

GOAL 2

Support the establishment and maintenance of systems and infrastructures needed to obtain, collate, and curate the biological specimens that are the basis of taxonomic knowledge.

Objectives:

- 2.1. Provide access to taxonomic information.
- 2.2. Improve biological collections as sources of taxonomic information.
- 2.3. Increase quantity of specimen collections and available taxonomic information.
- 2.4. Identify and establish taxonomic reference centers.

Objectives	Strategic Actions	Specific Actions	Timeline
2.1. Provide access to taxonomic information to AMS	2.1.1. Support access to and generation of taxonomic information	2.1.1.1. Gain access to online/digital taxonomic literature, publications, and taxonomic specimens.	2017-2025
		2.1.1.2. Digitize type specimens and integrate to the CHM.	2017-2025
		2.1.1.3. Upgrade libraries by digitizing publications and integrating to the CHM.	2017-2025
		2.1.1.4. Standardize the interoperability of databases / platforms in the AMS for data management.	2017-2025
	2.1.2. Support access to and generation of taxonomic information.	2.1.2.1. Conduct workshops, symposia, and consultation meetings.	2017-2025
		2.1.2.2. Establish a program for exchange of materials between institutions / researchers.	2017-2025
		2.1.2.3. Facilitate/Develop specimen loan programs among AMS.	2017-2025
	2.2.3. Strengthen the coordination/facilitative roles of GTI National Focal Points	2.1.3.1. Institutionalize connection between the GTI focal point person and CBD focal institution.	2017-2025
		2.1.3.2. Allocate resources for operational activities of the GTI focal point.	2018-2025
2.2. Improve biological collections as sources of taxonomic information	2.2.1. Strengthen the coordination/facilitative roles of GTI National Focal Points	2.2.1.1. Improve facilities (building, cabinets, air conditioning, microscopes, and others).	2017-2025
		2.2.1.2. Conduct training on herbarium and museum curatorship.	2017-2025
		2.2.1.3. Establish standard pest (insects / fungi / bacteria) management protocol of collected specimens (poisoning and other treatments).	2017-2025
2.3. Increase quantity of specimen collections and available taxonomic information	2.3.1. Rationalize/simplify the permit system for specimen collection and transport	2.3.1.1. Facilitate sharing of different permit-securing systems of each AMS for inter- and intra-country specimen collection activities.	2017-2020
	2.3.2. Facilitate collections and exchange of specimens through national and regional policy development underpinning mutual benefit between the source and receiver of specimens.	2.3.2.1. Initiate discussion towards crafting policy recommendations in terms of developing protocols for regional movement of specimens for national museums / botanic gardens / herbaria (e.g. EU policy in specimen movement).	2021-2025
		2.3.2.2. Conduct training on specimen collection processes (e.g. photography, field notes, DNA material, and others).	2018-2025
2.4. Identify and establish taxonomic reference centers	2.4.1. Strengthen existing networks for regional cooperation in the development and establishment of taxonomic reference centers	2.4.1.1. Assist in the establishment and improvement of existing taxonomic reference centers (herbaria, botanic gardens, museums, arboreta, aquaria, culture collections, and others).	2018-2025

GOAL 3

Facilitate an improved and effective infrastructure/system for accessing taxonomic information through the existing platforms such as the Regional and National Clearing-House Mechanisms (CHMs), among others.

Objectives:

- 3.1. Establish and maintain national CHMs containing species database.
- 3.2. Improve the cooperation of the AMS through sharing of information through the ASEAN CHM, other Multilateral Environmental Agreements (MEAs), and among GTI, CHM, and CBD Focal Points.

Objectives	Strategic Actions	Specific Actions	Timeline
3.1. Establish and maintain national CHMs containing species database	3.1.1. Establish and maintain national CHMs containing species database	3.1.1.1. Identify organizations and individuals with species information and establish data sharing protocols . <i>(Data sharing protocols refer to agreements among stakeholders' network in the collection, updating, and access of data contributed to the CHM species database).</i>	2017-2019
		3.1.1.2. Establish and update species checklist . <i>(Species checklist refers to the collated list of species [with taxonomic information] of all member organizations in a CHM network. Information on species abundance and distribution may be included if readily available).</i>	2017-2020
		3.1.1.3. Conduct national level trainings in data encoding, species database organization and management, and CHM establishment and maintenance.	2017-2020
		3.1.1.4. Develop and update species database in the national CHMs based on the species checklist.	2017-2025
		3.1.1.5. Identify and develop new knowledge products and tools (products derived from the database).	2018-2025
3.2. Improve the cooperation of the AMS through sharing of information through the ASEAN CHM and other Multilateral Environmental Agreements (MEAs)	3.2.1. Develop and implement capacity building program on the establishment and maintenance of CHMs	3.2.1.1. Conduct regional trainings in data encoding, species database organization and management, and CHM establishment and maintenance.	2017-2025
		3.2.1.2. Develop and update species databases in the ASEAN CHM.	2017-2025
		3.2.1.3. Translate species data to English language.	2017-2025
	3.2.2. Establish linkage with other Multilateral Environmental Agreements (CITES, CMS, Nagoya Protocol, Cartagena Protocol)	3.2.2.1. Conduct consultation workshops with MEAs to ensure the interoperability of species information at the national level.	2017-2020
	3.2.3. Strengthen cooperation among the CHM, GTI, and CBD focal points	3.2.3.1. Facilitate information exchange activities for the CHM, GTI, and CBD focal points.	2017-2025



GOAL 4

Assist AMS in generating information needed for decision-making in the conservation and sustainable use of biological diversity and its components.

Objectives:

- 4.1. Conduct taxonomic inventory in AHPs, protected areas (PAs), and other conservation areas.
- 4.2. Conduct national assessment of the conservation status of species of AMS.
- 4.3. Address cross cutting issues in the CBD such as Climate Change, Agrobiodiversity, Crop Wild Relatives, Access and Benefit Sharing (ABS), Invasive Alien Species, and Traditional Knowledge, among others.

Objectives	Strategic Actions	Specific Actions	Timeline
4.1. Conduct taxonomic inventory in AHPs, PAs, and other conservation areas	4.1.1. Generate information needed for decision-making in the conservation and sustainable use of biological diversity and its components.	4.1.1.1. Conduct research and development activities in priority conservation areas.	2017-2025
		4.1.1.2. Identify biodiversity hotspot areas and critical ecosystems.	2017-2025
		4.1.1.3. Develop / update geo-maps of species and habitats.	2017-2025
4.2. Conduct national assessment of the conservation status of species of AMS	4.2.1. Review and assess conservation status of species (IUCN, IAS, CITES, CMS, etc.)	4.2.1.1. Conduct research and development activities.	2018-2025
4.3. Address cross cutting issues in the CBD such as Climate Change, Agrobiodiversity, Crop Wild Relatives, Access and Benefit Sharing (ABS), Invasive Alien Species, and Traditional Knowledge, among others	4.3.1. Develop programs to address cross cutting issues	4.3.1.1. Conduct assessment studies of crop wild relatives, traditional varieties, and others.	2018-2025
		4.3.1.2. Conduct studies on species responses to climate change.	2018-2025
		4.3.1.3. Conduct studies on the impacts of IAS on native biodiversity.	2018-2025
		4.3.1.4. Conduct studies on the impacts of GMOs on native biodiversity.	2019-2025
		4.3.1.5. Conduct ethno-biological studies (relationship between human and biological resources).	2018-2025

The **ASEAN Centre for Biodiversity (ACB)** is ASEAN's response to the challenge of biodiversity loss. It is an intergovernmental regional centre of excellence that facilitates cooperation and coordination among the ASEAN Member States and with relevant national governments and regional and international organizations on the conservation and sustainable use of biological diversity, as well as the fair and equitable sharing of benefits arising from the use of such national treasures.

For more information, log on to
www.aseanbiodiversity.org or
chm.aseanbiodiversity.org

ASEAN Centre for Biodiversity
Domingo M. Lantican Avenue,
University of the Philippines Los Baños Campus,
Los Baños, Laguna 4031, Philippines
Tel. Nos.: +632 584-4210, +6349 536-2865

 ASEAN Centre for Biodiversity

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Championing Biodiversity Conservation in the ASEAN Region



2011-2020
United Nations Decade on Biodiversity

Global Taxonomy Initiative
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Editorial Advisers: ASEAN Member States, ASEAN GTI National Focal Points, ACB Scientific Advisory Committee

Editors: Clarissa C. Arida, Filiberto A. Pollisco, Jr., Rhia C. Galsim, Sahlee B. Barrer, Pamela Q. Reblora

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