



BUILDING CAPACITY TO IMPLEMENT  
THE **Nagoya Protocol**  
A REVIEW OF GEF SUPPORT



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# Preface



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The entry into force of the Nagoya Protocol during the 12<sup>th</sup> Conference of the Parties to the CBD is a historical milestone that opens the doors for a global commitment on accessing and sharing benefits arising out of the utilization of genetic resources. The loss of biological resources and their genetic makeup, along with the knowledge of Indigenous Peoples and Local Communities (ILCs) on how to use many of these resources, are a significant concern. The knowledge on the use of biological resources by ILCs has been built up over generations, making it essential that we protect them. Failing to do so, will put these communities and the biological resources at risk. These biological resources provide a wide range of products and services for human benefit including products such as medicines, cosmetics, and ingredients of interest to the food and beverage industries. The genetic variability of plants, animals and microbes may hold the key to many challenges ahead of us, and we need to protect them for our own good as well as for the generations to come. It is critical to unlock the potential benefits to be gained by accessing genetic resources, making use of them, and sharing the benefits derived from their utilization.

The GEF has supported ABS for more than a decade. As the financial mechanism of the Convention on Biological Diversity (CBD) the GEF has assisted parties in building the capacities to comply with the third objective of the Convention, *“the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding”*. GEF’s support began in 2002 following a request by the Conference of the Parties to the CBD in its 6<sup>th</sup> meeting in The Hague. With the adoption and entry into force of The *“Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity”*, the commitment to support parties to comply with the legally binding protocol is stronger than ever. Indeed, in the Biodiversity strategy for GEF-6 (2014-2018) there is a specific program to assist countries to implement the Nagoya Protocol.

In this publication, you will find a summary of the work on ABS supported by the GEF and some of the challenges and opportunities ahead of us. I invite parties to the CBD to continue building capacities to comply with the Protocol and make the most from the vast terrestrial and marine environments around the world. The GEF Secretariat is ready to engage with countries and agencies to make the most of this opportunity.

# SUMMARY

The GEF has invested more than \$ 60 million and leveraged \$120 million in co-financing in over 100 countries in support of the third objective of the Convention on Biodiversity (CBD): *“the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding”*.

The GEF started supporting capacity building projects on Access and Benefit Sharing (ABS for short) in 2003, following the request by the COP to provide financial resources to assist Parties with the implementation of the Bonn Guidelines, the voluntary provisions that allowed countries to implement the provisions of the Convention on ABS. The GEF created a strategic objective and strategic program in the GEF biodiversity strategy for GEF-4 (2007-2010) titled *“Building Capacity on Access and Benefit Sharing (ABS)”*. Under this strategy, the GEF supported a number of national and regional projects to establish measures that promote access and benefit-sharing agreements that recognize the core ABS principles of Prior Informed Consent (PIC), Mutually Agreed Terms (MAT) and the

fair and equitable sharing of benefits. With the adoption of the Nagoya Protocol in 2010, the GEF provided financial resources for the ratification and implementation of the protocol through its GEF-5 Biodiversity Strategy (2010-2014) and the Nagoya Protocol Implementation Fund (NPIF) established in 2011. The NPIF supported a number of projects with pilots in support of existing partnerships and joint ventures of governments, the private sector, and national and international academic and research institutions. These groups are searching for genetic resources of interest to various sectors including pharmaceuticals, crop-protection, manufacturing/textile , cosmetics and food-and-beverages. Terrestrial and marine organisms are being used as the source of genetic material and obtained in National or Regional Parks or through engagement with private owners, indigenous peoples and local communities, all with appropriate consent from the legitimate authorities. The GEF will continue providing financial and technical assistance for the ratification and implementation of the Nagoya Protocol and for pilot projects leading to legally binding agreements between users and providers of genetic resources during its 6<sup>th</sup> funding cycle (2014-2018).

# GEF Support to ABS

Following the requests by the COP to provide financial resources to assist Parties with the implementation of the Bonn Guidelines on ABS, the GEF-3 Biodiversity Strategy (2002-2006) prioritized support to ABS activities.

Under this strategy, the GEF supported a number of small projects that included components dealing with benefit sharing agreements. These Enabling Activities assisted 22 countries to assess their capacity with regard to ABS<sup>1</sup>. Many of the projects with ABS components funded during this period included *in situ* and on farm conservation of agricultural biodiversity (horticultural crops and wild fruit species) and crop wild relatives. Many of the projects included information management and decision-support tools to conserve and sustainably use genetic diversity promoting sustainable livelihoods, food security and ecosystem services (pest control and diseases).

Before the international legally binding Nagoya Protocol was adopted, the GEF continued its support for ABS in the GEF biodiversity strategy for GEF-4 (2006-2010). GEF supported capacity building of governments for meeting their obligations under Article 15 of the CBD, as well as building capacity within key stakeholder groups, including the scientific community, indigenous peoples and local communities. The strategy also supported the establishment of measures that promote concrete access and benefit-sharing agreements that recognize the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits. Projects in this strategic program were consistent with the non-legally binding Bonn Guidelines. During this period the GEF approved five projects on ABS for a total of \$8.4 million which leveraged \$10.4 million in co-financing: three regional projects [Africa (Photo 1), Latin American and the Caribbean, and Asia] assisting a total of 40 countries, and two national projects, one in Ethiopia (Photo 2) and



Photo 1. Rice fields in Madagascar, one of the countries participating in the regional project GEF-UNEP ID 2820 "Supporting the Development and Implementation of ABS Policies in Africa". Photo by Jaime Cavellier

<sup>1</sup> Armenia, Benin, Burkina Faso, Burundi, Central African Republic, Congo, Congo DR, Dominica, El Salvador, Estonia, Ethiopia, Gabon, Gambia, Guinea Bissau, Jamaica, Federal Republic of Micronesia, Panama, Samoa, Sudan, Uruguay and Zimbabwe



Photo 2. The market at Bahir Dar, Ethiopia. During GEF-4, Ethiopia received a grant "Capacity Building for ABS and Conservation and Sustainable Use of Medicinal Plants". UNEP is the GEF Agency. Photo by Jaime Cavalier.

one in India (Photo 3). These projects focused on developing national ABS policies and regulations, strengthening the capacity of stakeholders and institutions on ABS, and building public awareness on ABS issues. The GEF has also supported ABS through Enabling Activities in Morocco (Photo 4), Pakistan and Mozambique, with a total investment of \$0.7 million. Hence, total investment in ABS was \$9.1 million of GEF resources.

In GEF-5 (2010-2014), GEF continued its focus on building capacity for ABS through the establishment of measures that promoted access and benefit-sharing agreements that recognize the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits. During this period, the GEF Trust Fund invested \$37.1 million and leveraged \$82 million in co-financing. These funds were invested in 10 national projects (Algeria, Bahamas, Brazil, China, Ecuador, Guatemala, Malaysia, Mexico, Morocco and Vietnam – Photo 5) one regional project (10 Caribbean countries) and two global projects (one for up to 30 countries for ratification and one for up to 25 for ratification and implementation). The national projects were granted to advance the ratification and implementation of the basic measures of the Nagoya Protocol. In a few cases (i.e. China, Ecuador, Malaysia and Vietnam), countries decided to use some of the funds allocated by the GEF by means of the System



Photo 3. Wheat harvest in central India. During GEF-4, India received the grant "Strengthening the Implementation of the Biological Diversity Act and Rules with Focus on its ABS Provisions". UNEP is the GEF Agency. Photo by Scott Wallace (World Bank Photo library).

of Transparent Allocation of Resources (STAR) to carry-out pilot projects on ABS agreements between users and providers of genetic resources.

During GEF-6 (2014-2018), the GEF will continue to support the Nagoya Protocol. Projects funded under the GEF Trust Fund and allocated via the STAR, will support national and regional implementation of the Nagoya Protocol, build capacity among stakeholders, and enhance the value of genetic resources. Specifically, the GEF will support stocktaking and assessments,



Photo 4. Women extracting oil from Argan seeds in Morocco. During GEF-4, the country benefited from an enabling activity in support of ABS. Photo by Jaime Cavalier.



Photo 5. Beginning of the rice harvest, Mai Chau, Hoa Binh province, northern Vietnam. Photo by Tran Thi Hoa (World Bank Photo Gallery).

the development and implementation of a strategy and action plan for the implementation of ABS measures (i.e. legal framework, administrative systems and institutional arrangements) and building capacity among stakeholders to participate in policy, legal and decision-making processes, and develop domestic protocols, model contractual clauses, and minimum requirements

to secure the fair and equitable sharing of benefits in line with the Nagoya Protocol. Countries may consider institutional capacity-building to carry out research and development associated with the valorisation of genetic resources (bio-prospecting). The GEF will also support the participation in the ABS Clearing-House mechanism as soon as it is operational.

# THE NAGOYA PROTOCOL IMPLEMENTATION FUND (NPIF)

As the President of COP-10, Japan proposed to establish a new multi-donor trust fund to promote the early entry into force and effective implementation of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization. The new fund was to be managed by the GEF with the World Bank serving as the Trustee.

The creation of the Nagoya Protocol Implementation Fund (NPIF) was approved by the GEF Council on February 18, 2011. Further to the creation of the fund, the GEF Council approved the arrangements proposed for the operation of this new multi-donor trust fund during its spring meeting of 2011. The terms of the NPIF are in the document GEF/C.40/11/Rev.1, *Outstanding Issues Related to the Nagoya Protocol Implementation Fund*. The NPIF received contributions for a total of \$16 million, generously made available by the Governments of Japan, France, Norway, Switzerland and the United Kingdom.

The NPIF started its operation in the summer of 2011, with the first grant awarded in December 2011. By the end of GEF-5 (June 30, 2014), the NPIF invested \$13 million and leveraged \$31.8 million in co-financing. These funds are allowing the development of 10 national projects (Argentina, Bhutan – Photo 6,



Photo 6. Farmers, agricultural fields and native forests in the mountains of Bhutan where natural compounds will be used for the development of cosmetics and pharmaceutical products Photo by Curt Carnemark (World Bank Photo Collection).



Cameroon, Cook Islands, Colombia, Costa Rica, Fiji, Gabon, Kenya, and Panama), 2 regional projects (Africa and Pacific) and 1 Global project. The country projects have a two-pronged approach: advancing the ratification and implementation of the basic measures of the NP, and piloting ABS agreement between users and providers of genetic resources. These pilots are meant to inform national implementation of the Protocol. They are accessing resources in National Parks or through engagement with indigenous peoples and local communities. The regional project in Africa is allowing the member countries of COMIFAC (Burundi, Central African Republic, Congo, Cameroon, Gabon, Equatorial Guinea, Rwanda, Sao Tome and Principe, Chad and the Democratic Republic of Congo) to work towards the ratification and implementation of the Nagoya Protocol. The regional project in the Pacific has similar objectives for the 12 member countries of SPREP (Cook Islands, Fiji, Micronesia, Kiribati, Marshall Islands, Nauru, Niue, Papua New Guinea, Palau, Solomon Islands, Tonga, Tuvalu, Vanuatu and Samoa). The global project is supporting the Ratification of the protocol in up to 30 countries. This project targeted countries that did not require the development of the entire legal and regulatory framework for ratification. By the end of GEF-5, 20 countries had benefited from this grant (Angola, Armenia, Burkina Faso, Belarus, Bosnia & Herzegovina, Cote d'Ivoire, Djibouti, Egypt, Guinea Bissau, Kazakhstan, Kyrgyzstan Lesotho, Malawi, Mauritania, Niger, Nigeria, Sierra Leone, Swaziland, Togo, Uganda, Zimbabwe).

## CHALLENGES AND OPPORTUNITIES TO IMPLEMENT THE PROTOCOL

The development and implementation of ABS projects over the last decade has provided the GEF with significant insights into the challenges and opportunities facing countries willing to engage in providing access and sharing the benefits derived from the use of the genetic resources under the provisions of the Nagoya Protocol. These include the requirements and procedures for ratification, how to establish the appropriate legal and administrative procedures for users and providers of genetic resources to engage, how to address issues related to traditional knowledge and how to make the best out of the relationships with ILCs, the implications of sourcing for biological material inside and outside of protected areas, how to add value to genetic resources through research and development, how to structure effective partnerships with domestic and international partners, and determining the appropriate targets in public awareness campaigns to ensure buy in on the part of key stakeholders. Here we elaborate on these challenges and opportunities using GEF funded projects as examples.

### RATIFICATION AND IMPLEMENTATION OF THE NAGOYA PROTOCOL

The Nagoya Protocol has been signed by 92 countries and has already been ratified by more than 50 countries, allowing for the protocol to enter into force at the first COP-MOP to take place in Pyeongchang, Republic of Korea, in October 2014. Of the 92 signatories, the GEF supported 15 countries with country-based or regional projects during GEF-4 (2006-2010). The GEF is also investing in 22 of the 50+ countries that ratified the protocol using financial resources from GEF-5

(2010-2014). Funds are being used to implement the basic measures of the protocol. There are also countries that have not signed and/or ratified the protocol that have also received funding from the GEF. All in all, the GEF has supported over 100 countries in fulfilling their obligations under the third objective of the CBD, with more than \$60 million invested and \$120 million leveraged in co-financing. During GEF-6 (2014-2018), there will be opportunities for countries to use the funds allocated to countries through the System of Transparent Allocation for Resources (STAR) to further advance the national ABS agenda.

GEF financial resources have been invested by means of national, regional and global projects. Ten countries (Algeria, Bahamas, Brazil, China, Ecuador, Guatemala, Malaysia, Mexico, Morocco and Vietnam) used some of their GEF-5 STAR allocations to put in place the legal-, regulatory-, institutional- and administrative-systems needed to comply with the basic provisions of the Protocol. Some of these countries (i.e. China, Ecuador, Malaysia and Vietnam), included a component to pilot some ABS agreements between users and providers of genetic resources. Regional projects in the Caribbean, Africa and the Pacific are also being used to create capacity needed in order to comply with the Protocol. These regional projects will deliver technical and financial assistance to the participating countries using a two pronged approach: first, the projects will group countries according to needs and deliver assistance by means of specialized consultancy services (i.e. scoping analysis and step wise approach to achieve targets, like ratification) or workshops on specific topics (i.e. capacity building); second, they will deliver technical and financial assistance on a country by country basis (i.e. public awareness campaigns and building institutional capacities in the Government agencies). These regional projects are building on a common geography or political support like in the case of the regional project in central Africa *“Ratification and Implementation of the Nagoya Protocol for the Member countries of the Central African Forests Commission COMIFAC”*. This project counts on significant political support for ABS in the region. Indeed, COMIFAC members signed a presidential agreements in 2011 to advance the ABS agenda in the region (*“Strategie des pays de l’espace COMIFAC relative a l’acces aux ressources biologiques/genetiques et au partage juste et equitable des avantages decoulant de leur utilisation”*).

## LEGAL CERTAINTY AND ADMINISTRATIVE PROCESSES

The GEF is currently supporting projects in over 50 countries to develop or strengthen the policy-, legal- and regulatory frameworks to comply with key provisions of the Nagoya Protocol. In GEF-5, the GEF provided grant support to conduct a comprehensive review and develop the policy and regulatory frameworks in countries in Latin America and the Caribbean (Bahamas, Brazil, Costa Rica, Ecuador, Guatemala, Mexico and Panama), Africa (Algeria and Morocco) and Asia (Malaysia, Bhutan, China and Vietnam). A common denominator among these countries is that they have elements of the law and even draft legislation governing the use of genetic resources. Furthermore, these countries have some of the institutions necessary to administer the process and/or monitor the granting of permits for Prior Informed Consent (PIC), Mutually Agreed Terms (MAT) and benefit sharing, needed for user and providers of genetic resources alike. In these cases, GEF financial resources will facilitate developing a comprehensive system that set the rules for accessing and sharing the resources derived from the use of genetic resources. Some resources are being used to complete building the institutional capacity to administer these processes, including the definition of the National Focal Points and the role and structure of the National Competent Authorities. In cases where the legislative agenda is insipient or non-existing, or the institutional capacity is weak, the GEF funds will serve to put in place the basic elements to address the requirements of the Nagoya Protocol. Having a minimum set of legal and administrative measures in place and the institutional capacity to oversee the process, are conditions *sine qua non* for users and providers of genetic resources to engage legally binding agreements on the access, use and sharing of benefits derived from their utilization.

## TRADITIONAL KNOWLEDGE

Most GEF funded projects on ABS include components that relate directly or indirectly with indigenous peoples and local communities (ILCs). Activities in support of engaging ILCs on the ABS agenda are a common denominator in the GEF portfolio, because ILCs live in the areas where the genetic resources are located. There are a number of projects where ILCs are not only included with other stakeholders but play a central role

in cases where legally binding agreements between the users of genetic resources are being negotiated. For instance, the project *“A Bottom up Approach to ABS: Community Level Capacity Development for Successful Engagement in ABS Value Chains in Cameroon (Echinops giganteus)”*, will result in the increased capacity of ILCs to engage with users of genetic resources by strengthening the value chains of products derived from the plant *Echinops giganteus*, a species of interest to the fragrance and flavor industries. The project *“Production of Natural Dyes in the Choco Region of Colombia for the Food, Cosmetics and Personal Care Industries under the Provisions of the Nagoya Protocol”* will allow a partnership in the Pacific lowlands of Colombia to scale up the production of natural dyes derived from the plant *Genipa americana*. The dyes are of interest to the food, cosmetics and personal care industries. The project will improve the capacity of the local communities to collect the fruits according to sustainability and biodiversity conservation criteria and develop ABS agreements with the users of the dyes (Photo 7). The project *“Strengthening the Implementation of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in the Cook Islands”* will result in the strengthening of the national and customary regulatory framework in compliance with the NP, the capacities of the local communities on sustainable cultivation/collection of plant material, and conservation of the habitats of *“Au” H. tiliaceus*. The project will also support the revision of existing ABS agreement to ensure compliance with the NP, and improved facilities and extraction protocols for the active compound derived from this plant. In Bhutan, the GEF is supporting the project *“Implementing the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Bhutan”*. In this project, ABS agreements will be negotiated between the companies, National Biodiversity Centre (NBC) and the communities. These agreements will include the use and protection of traditional knowledge associated with biological resources used as the source of active compounds for the development of cosmetic and pharmaceutical products.

## NATIONAL AND REGIONAL PARKS

A number of GEF funded projects are sourcing genetic resources from national or regional parks. In the project *“Promoting the application of the Nagoya Protocol on*



Photo 7. Testing the blue dye derived from the plant *Genipa americana*, a native species in the Pacific Lowlands of Colombia. Photo Ecoflora.

*Access to Genetic Resources and Benefit Sharing in Panama”*, GEF funds will assist in the discovery of active compounds from marine organisms (mainly corals) and the improvement of the infrastructure of Coiba National Park, where coral samples are being collected (Photo 8). In the project *“Developing the Microbial Biotechnology Industry from Kenya’s Soda Lakes in line with the Nagoya Protocol”* the GEF is supporting a series of activities to carry out research and development on genetic resources from micro-organisms collected in the Soda Lakes. The project is supporting the development of tourism infrastructure in these National Parks. In Fiji, the project *“Discovering nature-based products and building capacities for the application of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing”*, bio-prospecting work will be linked strongly to biodiversity conservation through management planning with local communities.



Photo 8. Coiba National Park, Panama. During GEF-5, Panama received the first grant from the "Nagoya Protocol Implementation Fund. The project is entitled "Promoting the application of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Panama". Photo by ICBG-Panama.

## PUBLIC AWARENESS

Activities to build capacity and raise awareness about the Nagoya Protocol are included in each and all of the GEF funded projects. These investments cover a wide range of audiences, including Indigenous and Local Communities (ILCs), government officials and the private sector. GEF funds are being used to develop, disseminate and put into practice "Communication, Education, Participation and Awareness" (CEPA) plans. These plans will allow clarifying the scope, rules and benefits that should be expected when engaging in agreements on the use of genetic resources.

## RESEARCH AND DEVELOPMENT

The GEF is supporting a number of countries improving their institutional and human capacities for research and development (R&D) of genetic resources. Increasing the value of genetic resources via R&D is central not only to the Nagoya Protocol, but to scientific and technological development policy of parties to the Protocol, and some countries are advancing on this front. For instance, in the project "Strengthening the Implementation of the Nagoya Protocol on Access to Genetic Resources

and Benefit Sharing in the Cook Islands", the GEF is supporting a consortium to improve facilities and extraction protocols for compounds derived from the plant "Au" (*Hibiscus tiliaceus*). These compounds are known to have bone and cartilage regeneration properties (Photo 9). In the project "Promoting the Application of the Nagoya Protocol through the Development of Nature-based Products, Benefit-sharing and Biodiversity Conservation" in Costa Rica, GEF funds are supporting the scientific research process needed to validate the potential of a sugar alkaloid (derived from the tree of the genus *Lonchocarpus*) and a compound derived from a micro fungus, for the production of crop-protection products (Photo 10). In the project "Promoting the application of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Panama", the GEF is supporting a joint-venture with the Government of Panama, the private sector and national and international academic and research institutions in search of active compounds derived from marine organisms of interest to the pharmaceutical sector. In this project as well as in Kenya, "Developing the Microbial Biotechnology Industry from Kenya's Soda Lakes in line with the Nagoya Protocol", the GEF is supporting the transfer of technology between users and providers of

genetic resources, including equipment, know-how and training. Another example of GEF support in R&D is the project *“Implementing the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Bhutan”*. In this case, there is a pilot aiming at the identification of lead compounds for the development of cosmetic and pharmaceutical products. The partners in this project include the Government of Bhutan, the Bhutan Conservation Trust Fund, and the private sector.

## MARINE BIO-PROSPECTING

The portfolio of GEF projects in support of ratification of the Nagoya Protocol include a number of pilots where there is bio-prospecting on marine organisms. These projects include *“Promoting the application of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Panama”*, and *“Discovering Nature-Based Products and Building Capacities for the Application of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing – Fiji”* (Photo 11). The project in Panama will concentrate on the discovery of nature-based products for the pharmaceutical and agrochemical industries and promote the conservation of genetic resources in the Protected Areas System of Panama, with particular emphasis on Coiba National Park. The project in Fiji will allow a joint venture to strengthen bio-prospecting through state of the art technology, the identification of highly active compounds of interest to the pharmaceutical and agrochemical industries, and make ABS Agreements and Benefit Sharing operational by linking bio-prospecting with marine conservation actions lead by local communities. There is also a project in Bahamas *“Strengthening Access and Benefit Sharing (ABS) in the Bahamas”* that will advance the national agenda on ABS and use a long standing business relation between the Government and the private sector on nature-based products to build proper ABS agreements under the provisions of the Nagoya Protocol.

## JOINT-VENTURES

The Nagoya Protocol Implementation Fund (NPIF) funded a number of projects with pilots in support of existing partnerships and joint ventures searching for active compounds of interest to various sectors including pharmaceuticals, manufacturing/textile, and cosmetics and food-and-beverages. In Argentina, the GEF is supporting the project *“Promoting the application of the Nagoya Protocol on ABS”* with a pilot using genetic resources from guanacos (*Lama guanicoe*). The project is bringing together the National Institute of Agricultural Technology (INTA), academic institutions and the private sector to build technical and institutional capacity for



Photo 9. Newly constructed extraction facility on Rarotonga for the CIMTECH Technology. Photo Lorinda Matheson.



Photo 10. Banana plants being treated with a natural compound being developed at INBio against fungal and bacterial diseases (Photo INBio, Costa Rica).



Photo 11. Coral north of Rakiraki, Viti Levu, Fiji.

developing and testing the VHH-based alternative treatment for acute gastroenteritis. In Cooks Islands, the GEF is supporting the project *“Strengthening the Implementation of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in the Cook Islands”*. This project is supporting the work of a natural-products research and development company and a lawfully recognized indigenous representative body to ensure compliance with the NP, and improve facilities and extraction protocols for the active compound derived from *“Au” (Hibiscus tiliaceus)*. In Panama (*“Promoting the application of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Panama”*), and in Fiji (*“Discovering nature-based products and building capacities for the application of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing”*), the GEF is supporting joint-ventures with the Governments, national and international academic and research institutions, and the private sector, searching for active compounds of interest to the pharmaceutical sector. In Kenya the project *“Developing the Microbial Biotechnology Industry from Kenya’s Soda Lakes in line with the Nagoya Protocol”*, is supporting

a joint venture of a national university, an incubator for industrial innovations, and the private sector, interested in the systematic discovery of natural products derived from *“extremophiles”*, the microorganisms adapted to extreme saline and acidic environments of the soda lakes. These products are of interest to the biofuel-, textile-, food and beverage industries, and bio pesticides for enhanced seed and seedling treatment (Photo 12). In Colombia, the GEF is supporting the project *“Production of Natural Dyes in the Choco Region of Colombia for the Food, Cosmetics and Personal Care Industries under the Provisions of the Nagoya Protocol”*, a partnership among the Colombian Government, local communities, and the private sector extracting and developing natural dyes are of interest to the food, cosmetics and personal care industries. The project in Bhutan *“Implementing the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Bhutan”* has similar objectives and structure with a consortium of the Government of Bhutan, the Bhutan Conservation Trust Fund, and the private sector, working on a pilot aiming at the identification of lead compounds for the development of cosmetic and pharmaceutical products.



Photo 12. Lesser Flamingos in Lake Bogoria National Reserve, one the shallow soda lakes in the Eastern Rift Valley, Kenya. Photo by Michael Schagerl.

# CONCLUSION

The entry into force of the Nagoya Protocol during the 12<sup>th</sup> Conference of the Parties to the CBD is a historical milestone that opens the doors for a global commitment on accessing and sharing benefits arising out of the utilization of genetic resources. Parties are encouraged to make use of the financial resources allocated by the GEF for the GEF-6 period (2014-2018) and to tap into the experience accumulated during the

last 10 years by the GEF Secretariat and the GEF Agencies on how to best develop and implement projects on ABS. The GEF is fully committed to support this legally binding protocol and to partner with agencies and executing partners to make agreements on ABS and encourage users and providers to direct benefits towards the conservation and sustainable use of biological diversity.

**TABLE 1 GEF ABS PROJECTS**

Project ID	IA	Country	Project Type	Project Title	CEO Approval Date	GEF Grant (\$US)	Co-financing (\$US)	Project Cost (\$US)
<b>GEF-4 GEF TRUST FUND</b>								
4091	UNEP	Ethiopia	FSP	Capacity Building for ABS and Conservation and Sustainable Use of Medicinal Plants	8 June 2010	2,047,000	2,025,000	4,072,000
3801	UNEP	India	FSP	Strengthening the Implementation of the Biological Diversity Act and Rules with Focus on its ABS Provisions	24 June 2009	3,561,000	6,228,000	9,839,000
2820	UNEP	Regional (Cameroon, Kenya, Madagascar, Mozambique, Senegal, South Africa)	FSP	Supporting the Development and Implementation of ABS Policies in Africa	5 May 2010	1,177,300	795,950	1,973,250
3855	UNEP	Regional (Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guyana, Panama, Peru)	MSP	Strengthening the Implementation of ABS Regimes in Latin America and the Caribbean	7 April 2009	850,000	600,000	1,450,000
3853	UNEP	Regional (Brunei, Indonesia, Cambodia, Lao PDR, Myanmar, Malaysia, Philippines, Singapore, Thailand, Timor Leste, Vietnam)	MSP	Building Capacity for Regionally Harmonized National Processes for Implementing CBD Provisions on ABS	11 May 2009	750,000	750,000	1,500,000
<b>GEF-5 GEF TRUST FUND</b>								
5808	UNDP	Algeria	MSP	Developing a national strategy and legal institutional framework on Access to Genetic Resources and related benefit sharing and traditional knowledge in line with the CBD and its Nagoya Protocol	21 May 2014	1,940,000	4,180,000	6,120,000
5744	UNEP	Bahamas	MSP	Strengthening Access and Benefit Sharing (ABS) in the Bahamas	14 May 2014	1,900,000	1,649,649	3,549,649
5760	IADB	Brazil	FSP	Capacity Building and Institutional Strengthening on the National Framework for Access and Benefit Sharing under the Nagoya Protocol	27 May 2014	4,401,931	4,401,931	\$8,803,862
5533	UNDP	China	FSP	Developing and Implementing the National Framework on Access and Benefit Sharing of Genetic Resources and Associated Traditional Knowledge	21 March 2014	4,436,210	22,236,000	\$26,672,210
5534	UNDP	Ecuador	FSP	Conservation of Ecuadorian Amphibian Diversity and Sustainable Use of its Genetic Resources	7 November 2013	2,726,908	11,546,000	\$14,272,908
4618	UNEP	Guatemala	MSP	ABS and Protection of Traditional Knowledge to Promote Biodiversity Conservation and Sustainable Use	20 October 2011	874,500	892,500	1,767,000
5593	UNDP	Malaysia	MSP	Developing and Implementing a National Access and Benefit Sharing Framework	22 October 2013	1,970,000	5,833,000	7,803,000



Project ID	IA	Country	Project Type	Project Title	CEO Approval Date	GEF Grant (\$US)	Co-financing (\$US)	Project Cost (\$US)
5738	UNDP	Mexico	FSF	Strengthening of National Capacities for the Implementation of the Nagoya Protocol on Access to genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization and Benefits Arising from their Utilization to the Convention on Biodiversity.	1 April 2014	2,283,105	8,429,862	\$10,712,967
5605	UNDP	Morocco	MSP	Developing a National Framework on Access to and Benefit-Sharing of Genetic Resources and Traditional Knowledge as a Strategy to Contribute to the Conservation and Sustainable Use of biodiversity in Morocco	19 November 2013	812,786	1,400,000	2,212,786
5653	UNDP	Vietnam	MSP	Capacity Building for the Ratification and Implementation of the Nagoya Protocol on Access and Benefit Sharing	6 March 2014	2,000,000	7,690,000	9,880,000
5774	UNEP	Caribbean — Regional (Antigua and Barbuda, Barbados, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Vincent and Grenadines, St. Kitts and Nevis, Trinidad and Tobago)	MSP	Advancing the Nagoya Protocol in countries of the Caribbean Region	9 May 2014	1,826,000	1,850,000	3,676,000
4415	UNEP	Global	MSP	Capacity Building for the Early Entry into Force of the Protocol on ABS	4 February 2011	944,750	1,159,400	2,104,150
5731	UNDP	Global (25 countries)	FSP	Strengthening Human Resources, Legal Frameworks and Institutional Capacities to Implement the Nagoya Protocol	27 May 2014	12,000,000	12,000,000	14,000,000
<b>GEF-5 NAGOYA PROTOCOL IMPLEMENTATION FUND</b>								
5820	UNDP	Argentina	MSP	Promoting the application of the Nagoya Protocol on ABS	22 may 2014	908,904	3,000,186	3,909,090
5448	UNDP	Bhutan	MSP	Implementing the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Bhutan	28 August 2013	1,000,000	2,000,000	3,000,000
5796	UNDP	Cameroon	MSP	A Bottom Up Approach to ABS: Community Level Capacity Development for Successful Engagement in ABS Value Chains in Cameroon (Echinops giganteus)	12 June 2014	400,000 + (500,000 from BD FAS)	1,100,000	2,000,000
5613	UNDP	Cook Islands	MSP	Strengthening the Implementation of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in the Cook Islands	23 December 2013	930,137	1,499,535	2,429,672
5160	UNDP	Colombia	MSP	The Development and Production of Natural Dyes in the Choco Region of Colombia for the Food, Cosmetics and Personal Care Industries Under the Provisions of the Nagoya Protocol	28 September 2012	980,000	1,516,500	2,496,500
5420	UNDP	Costa Rica	MSP	Promoting the Application of the Nagoya Protocol through the Development of Nature-based Products, Benefit-sharing and Biodiversity Conservation	7 May 2013	979,566	4,619,309	5,598,875

Project ID	IA	Country	Project Type	Project Title	CEO Approval Date	GEF Grant (\$US)	Co-financing (\$US)	Project Cost (\$US)
5170	UNDP	Fiji	MSP	Discovering Nature-Based Products and Building Capacities for the Application of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing	2 October 2012	970,000	2,370,000	3,340,000
5882	UNEP	Gabon	MSP	Implementation of National Strategy and Action Plan on Access to Genetic Resources and The Fair and Equitable Sharing of Benefits Accruing From Their Utilization	10 June 2014	863,242	1,790,000	2,703,242
5626	UNEP	Kenya	MSP	Developing the Microbial Biotechnology Industry from Kenya's Soda Lakes in line with the Nagoya Protocol	5 December 2013	913,000	1,751,845	2,664,845
4780	UNDP	Panama	MSP	Promoting the application of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Panama	13 December 2011	1,000,000	3,422,000	4,422,000
5454	UNEP	Africa — Regional (Burundi, Central African Republic, Congo, Cameroon, Gabon, Equatorial Guinea, Rwanda, Sao Tome and Principe, Chad, Congo DR)	MSP	Ratification and Implementation of the Nagoya Protocol for the Member countries of the Central African Forests Commission COMIFAC	20 August 2013	1,762,557	8,300,000	10,062,557
5634	UNEP	Pacific — Regional (Micronesia, Kiribati, Marshall Islands, Nauru, Niue, Papua New Guinea, Palau, Solomon Islands, Tonga, Tuvalu, Vanuatu, Samoa).	MSP	Ratification and Implementation of the Nagoya Protocol in the countries of the Pacific Region	11 December 2013	1,762,557	950,000	2,712,557
5172	UNEP	Global (Angola, Armenia, Burkina Faso, Belarus, Bosnia & Herzegovina, Cote d'Ivoire, Djibouti, Egypt, Guinea Bissau, Kazakhstan, Kyrgyzstan, Lesotho, Malawi, Mauritania, Niger, Nigeria, Sierra Leone, Swaziland, Togo, Uganda, Zimbabwe)	MSP	Global Support for the Entry into Force of the Nagoya Protocol on Access and Benefit Sharing	1 October 2012	1,000,000	627,500	1,627,500

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## ABOUT THE GEF

The Global Environment Facility is a partnership for international cooperation where 183 countries work together with international institutions, civil society organizations and the private sector, to address global environmental issues.

Since 1991, the GEF has provided \$12.5 billion in grants and leveraged \$58 billion in co-financing for 3,690 projects in 165 developing countries. For 23 years, developed and developing countries alike have provided these funds to support activities related to biodiversity, climate change, international waters, land degradation, and chemicals and waste in the context of development projects and programs.

Through its Small Grants Programme (SGP) the GEF has made more than 20,000 grants to civil society and community based organizations for a total of \$1 billion.

Among the major results of these investments, the GEF has set up protected areas around the world equal roughly to the area of Brazil; reduced carbon emissions by 2.3 billion tonnes; eliminated the use of ozone depleting substances in Central and Eastern Europe and Central Asia; transformed the management of 33 major river basins and one-third of the world's large marine ecosystems; slowed the advance of desertification in Africa by improving agricultural practices—and all this while contributing to better the livelihood and food security of millions of people.

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