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PROGRESS REPORT ON TECHNICAL AND SCIENTIFIC COOPERATION

I. INTRODUCTION

1. In paragraph 9 of decision XII/2 B, the Conference of the Parties requested the Executive Secretary to enhance technical and scientific cooperation and technology transfer under the Convention. The Conference of the Parties also welcomed the Bio-Bridge Initiative (BBI), established with initial support from the Government of the Republic of Korea, to promote and facilitate technical and scientific cooperation with a view to enhancing the implementation of the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets, as well as the updated national biodiversity strategies and action plans (decision XII/2 B, para. 13 and decision XII/3, para. 5).

2. The present document provides a progress report on the activities undertaken since the thirteenth meeting of the Conference of the Parties to promote and facilitate enhanced technical and scientific cooperation and technology transfer under the Convention. Section II provides an update on the activities and achievements under the Bio-Bridge Initiative while section III outlines other technical and scientific cooperation initiatives carried out or launched.

II. UPDATE ON PROGRESS WITH THE BIO-BRIDGE INITIATIVE

3. The Bio-Bridge Initiative[1] has made significant progress since the last meeting of the Conference of the Parties. In January 2017, the Secretariat commenced the operational phase of the programme in line with the Bio-Bridge Initiative Action Plan[2] that was launched in December 2016 in the margins of COP 13 to guide operations and inform activities for the period 2017-2020. Some of the major achievements to date include the establishment of a help desk and the launch, in March 2017, of the BBI website and a web platform powered by the central clearing-house mechanism,[3] which together with the help desk, underpin the matchmaking process. The matchmaking web platform allows countries and relevant stakeholders to submit requests for assistance, post offers of technical assistance, announce available opportunities and access a range of knowledge assets and curated resources.

4. Following the onboarding of two core staff – the Programme Management Assistant and Programme Management Officer – in January and February of 2018 respectively, the programme has grown from strength to strength. Since inception, the Bio-Bridge Initiative has incubated several successful

[1] At its core, the Bio-Bridge Initiative is a programme that links Parties that have technical and scientific needs with Parties and institutions that are in a position to respond to these needs through mutual partnerships and through incubation of new initiatives using small seed funding. It also provides several tools and services that Parties and institutions can leverage to share information about existing opportunities, expertise, knowledge, good practices and lessons learned with each other.

[2] A copy of the Action Plan is available at: https://www.cbd.int/bio-bridge/BBI-Action-Plan-2017-2020.pdf

[3] The matchmaking platform can be accessed at https://www.cbd.int/biobridge/platform

technical and scientific cooperation projects and partnerships through a combination of catalytic early-stage seed funding and institutional pro-bono support. Some partnerships supported through the programme have been successful in leveraging other sources of financial support and have subsequently gone on to implement follow-up activities and generate momentum post-project to address their technical and scientific cooperation needs. BBI has also helped to strengthen the institutional capacities of both countries and institutions through leadership and matchmaking that has led to stronger conservation outcomes.

A. PILOT AND DEMONSTRATION BIO-BRIDGE INITIATIVE PROJECTS

5. The Bio-Bridge Initiative, through its seed grant facility, provided catalytic support for the incubation of nine demonstration projects from the following countries: Belarus, China, Colombia, Costa Rica, Ghana, India, Malawi, Morocco and Zimbabwe[4] (see Annex 1). This demonstration project approach is a stopgap measure to showcase exemplary case studies of technical and scientific cooperation and to support partnerships on a range of themes relevant to the Convention and its Protocols. This approach complements the pro-bono support model articulated in the Action Plan.

6. Demonstration projects were selected by an external Project Review Panel[5] from a total of 31 requests for assistance that were submitted by Parties in response to a request for proposals issued through notification 2016-126. The initial investment in nine projects resulted in BBI successfully catalyzing technical and scientific cooperation partnerships across a total 37 countries. This underscores the need for early-stage incubation support as part of an effective matchmaking model to enable those institutions responding to needs, to assist Parties viably pursue their individual or collective biodiversity-related goals through joint cooperation programmes.

7. These demonstration projects built on an initial four pilot projects implemented in 2016 and in early 2017 to test various technical and scientific cooperation approaches and generate some lessons to inform the further development and implementation of BBI. The pilot projects were also intended to draw attention to ongoing and potential TSC initiatives, engage key stakeholders and generate interest in TSC. They were selected and recommended for to receive seed funding by a Project Selection Committee (PSC) from a total of 17 proposals.[6]

8. The 4 pilot projects were the following:

a. “Cooperation for the Development of Ecosystem - Natural Capital Accounts in Francophone African Developing Countries”, facilitated by Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD) and Université du Québec à Montréal (UQAM). The project aims to develop a cooperation project on the development of economic valuation tools for biodiversity and national ecosystem-based accounting systems involving Burkina-Faso, Guinea-Conakry, Morocco, Niger, Senegal and Tunisia.

[4] See details in notification 2018-022 available at: https://www.cbd.int/doc/notifications/2018/ntf-2018-022-bbi-en.pdf. One other country, Vietnam, which was selected to receive seed funding, did not submit a full project proposal and implementation plan in time before the closure of this second round of projects. Short descriptions of the selected projects are available at: https://www.cbd.int/biobridge/projects/selected. While the programme had initially selected a demonstration project in Venezuela facilitating technical and scientific cooperation with Costa Rica, the proponent in Venezuela was not able to secure the endorsement of the selected implementing partner(s) within a reasonable timeframe. In this regard, the Secretariat continued with implementation of components with Costa Rica to support protected area management planning in the Municipality of Panguipulli in Chile.

[5] The Project Selection Committee comprised five members including: the Chair of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), the Chair of the Subsidiary Body on Implementation (SBI), the Chair of the Informal Advisory Committee of the Clearing-House (CHM-IAC), a representative of the Consortium of Scientific Partners on Biodiversity (CSP), a representative of the Ministry of Environment, Government of the Republic of Korea, and a representative of the Global Environment Facility (GEF).

[6] See details about the pilot projects at https://www.cbd.int/biobridge/projects/completed.

b. "Sustainable management of ASEAN Heritage Parks through valuing and improving eco-tourism", facilitated by Korea Environment Institute (KEI). The project aims to promote an innovative modeling approach using social big-data to examine the current status of management, and support the development of related management strategies encouraging eco-tourism that enhances cultural services.

c. "Transfer of DNA bar-coding analysis technology for biodiversity monitoring", facilitated by National Institute of Biological Resources of Korea (NIBR). The project aims to facilitate transfer of the DNA bar-coding analysis technology for biodiversity monitoring to a few Asian countries.

d. "Development of policies for tourist concessions within Southern African national parks systems", facilitated by the Tourism and Parks Specialist Group (TAPAS) of International Union for Conservation of Nature (IUCN). The project aims to facilitate cooperation among the participating countries to undertake feasibility studies and pilot cases and develop their policies and systems for tourism concessions in protected areas.

9. Through notification 2018-049 in May 2018, the Secretariat received 63 submissions, 28 of which successfully passed Stages 1 and 2 of the selection process. A Project Review Panel evaluated the 28 pre-selected proposals for their technical merit according to set criteria. The programme is currently able to provide 10 proponents (15.8% of all submissions) with a maximum of $20,000 to catalyse partnership building activities to address their technical and scientific cooperation needs. Historically, the programme has been able to support an average of 26% of all submissions; a 10% decrease in the ability of the Secretariat to effectively respond to technical and scientific cooperation requests from Parties and facilitate matchmaking.

B. BBI TOOLS AND HELP DESK SERVICES

10. A BBI website (http://www.cbd.int/biobridge), officially launched in September 2016, was updated in March 2017. An interactive web platform (http://www.cbd.int/biobridge/platform), which serves as the primary mechanism for matchmaking between requesters and providers of technical assistance, was launched in March 2017. The platform offers three common forms, powered by the clearing-house mechanism, to facilitate the submission of requests for assistance, the registration of providers of technical assistance, and the submission of information of available technical assistance and capacity-building opportunities.

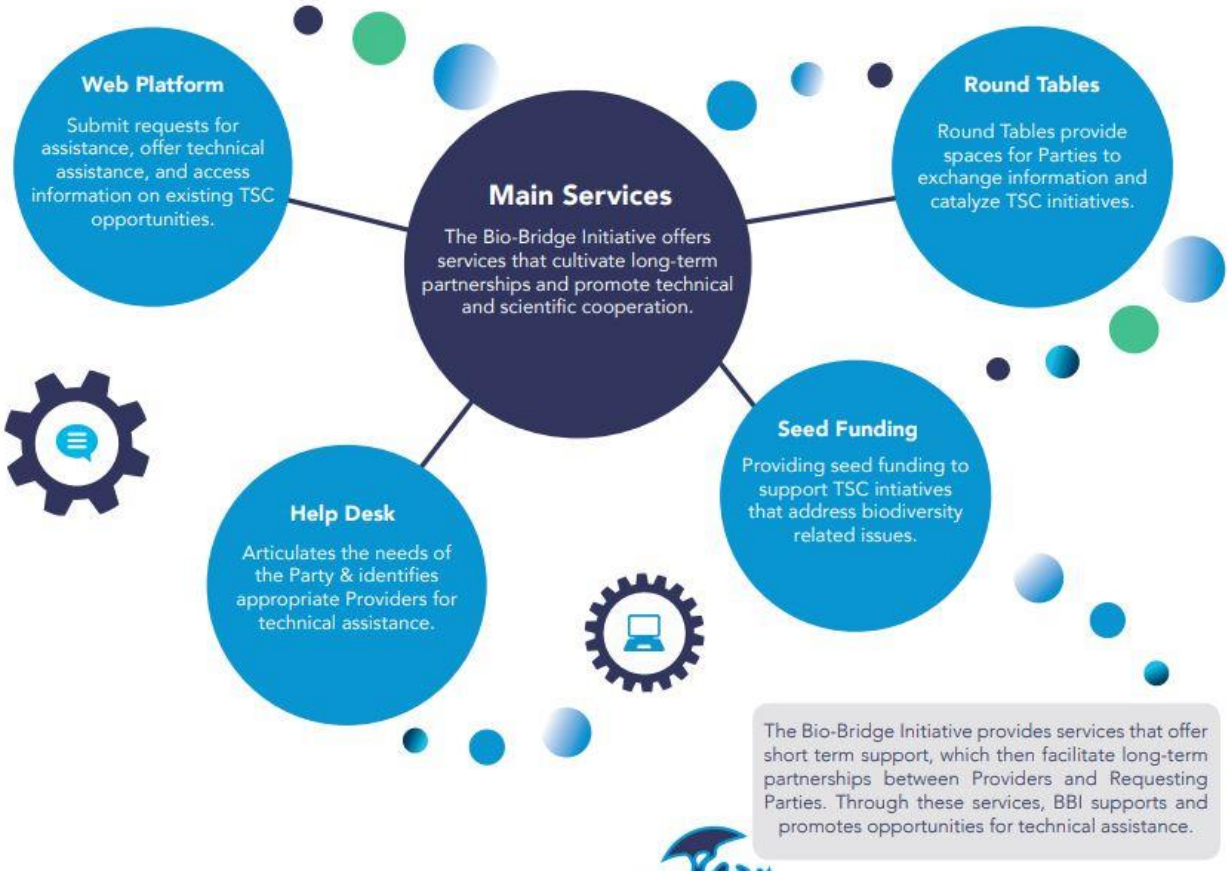
11. The core team has reached out to and is continuing to encourage relevant organizations to register as providers of technical assistance on the matchmaking web platform. The success of BBI hinges on establishing a critical mass of partners that BBI can rely on to respond to the requests for assistance received. BBI will continue to engage additional providers of technical assistance on an ongoing basis and nurture new partnerships to expand the current partner base.

12. As part of this broader engagement strategy, the programme is working towards establishing a stronger rapport and engagement with the wider scientific community, including academic and research institutions, to create opportunities for South-South and triangular cooperation. It is actively engaging members of the Consortium of Scientific Partners on Biodiversity (CSP), as well as establish contact and closer working relationship with new entities that are positioned to inject new knowledge, technical expertise, and solutions on a wide range of topics, and ensure that they are registered on the BBI database of providers of technical assistance. Moreover, a total of 68 opportunities have been published and have been made available to end users on the web platform.

13. Further discussions and consultations have been held with various organizations, including the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) the UNDP Biodiversity and Ecosystem Services Network (BES-Net), the United Nations Framework Convention on Climate Change Climate Technology Centre and Network (CTCN), the NBSAP Forum, the Sustainable

Development Goals Technology Facilitation Mechanism (SDG TFM) and the Standards and Trade Development Facility (STDF). These activities were aimed at exploring further opportunities for cooperation and partnerships with relevant initiatives and fostering synergies to avoid duplications of efforts. Specifically, there is an opportunity to better align programmes, extend usage of key tools and make IT systems interoperable to be more effective and to reciprocally support each others' operational models and the programme has had a number of discussions exploring such linkages with CTCN.

Figure 1 – BBI Tools and Services



C. REGIONAL BIO-BRIDGE INITIATIVE ROUND TABLES

14. The Secretariat organised four regional Bio-Bridge Initiative round tables for Asia-Pacific (15-19 October 2017 in Incheon, Republic of Korea), Africa (7-9 November 2017 in Entebbe, Uganda), Latin America and the Caribbean (27-29 November 2017 in Bogota Colombia) and Central and Eastern Europe and the Central Asian Republics (26-28 February 2018 in Minsk, Belarus). The round tables aimed to promote awareness of the Initiative (including its action plan for 2017-2020, operational procedures, criteria and support tools) and share experiences and lessons learned with respect to technical and scientific cooperation for biodiversity. The round tables also provided an opportunity for countries requiring assistance to highlight their priority technical and scientific needs and for potential providers of technical assistance, including Parties, regional and international organizations, donor agencies and private sector entities, to share information about their activities and the kind of support they could offer to countries requiring assistance.

15. During the four round tables, countries identified the following, in the order of priority, as their key needs that could be addressed through technical and scientific cooperation: invasive alien species, protected area management and tourism, access and benefit sharing, biodiversity identification and monitoring (including species identification using DNA technologies), ecosystem restoration, ecosystem valuation and accounting, biodiversity information management, climate change and biodiversity, control of illegal wildlife trade, protection and recovery of threatened species, biosafety, agricultural biodiversity, traditional knowledge and community-based monitoring, and control of pollution. They also identified the following cross-cutting needs: communication, education and public awareness; project proposal development, resource mobilization and support for the development and implementation of national biodiversity strategies and action plans and policy frameworks (see summary table in Annex 2 below)

16. A Regional Bio-Bridge Round Table for Western Europe and Others Group was organized by the Secretariat, in collaboration with the Royal Belgian Institute of Natural Sciences on 21 September 2018 in Brussels, Belgium. This one-day examined technical and scientific cooperation and technology transfer from a "supply" perspective to identify potential opportunities for leveraging additional support to upscale and replicate projects supported by the programme through new partnerships. The event also provided an opportunity for participants to share experiences and lessons learned with different matchmaking models, as well as to explore ways to encourage Parties and organizations in the region to respond effectively to the needs expressed by countries during the initial set of four round tables.

17. One of the lessons that are being learned during the operational phase of Bio-Bridge Initiative is the need to adopt more programmatic and multi-stakeholder approaches to address the capacity gaps in achievement of the Aichi Biodiversity Targets. In line with past decisions of the Conference of the Parties relating to the private sector and the scientific community, this could include consultations with the Consortium of Scientific Partners, the Business and Biodiversity Platform and its fora and the Parties' agencies focused on green technological innovation.

18. The core team is reaching out to countries that have submitted requests for assistance to clarify their requirements and is exploring all avenues to actively search for Providers who are able to respond to these needs and offer technical assistance. Finding organizations however that are in a position to and willing to start incubating projects and partnerships on a pro-bono basis has proved challenging for the programme to date. Notable successes have been achieved where the programme has been able to inject catalytic support and incubate a partnership.

Table 2 – Summary of Matchmaking to Date

Requests for assistance/ Proposals received	115	
Successful matches	26	25 with catalytic early-stage incubation
		1 with institutional pro-bono support
Percentage of approved proposals – Round 1	23.5%	
Percentage of approved proposals – Round 2	29%	
Percentage of approved proposals – Round 3	15.8%	

III. OTHER TECHNICAL AND SCIENTIFIC COOPERATION INITIATIVES

19. In addition to the facilitation of technical and scientific cooperation through the Bio-Bridge Initiative, the Secretariat is supporting the work of the Consortium of Scientific Partners on Biodiversity. During this biennium, the Secretariat updated the CSP website[7] and initiated a process to develop a CSP work plan for the period 2019-2020. A meeting of the CSP was organized on the margins of SBSTTA22 in

[7] See https://www.cbd.int/cooperation/csp.

Montreal, Canada on 4 July 2018 with a follow-up scheduled during COP14 in Egypt to, among other things, formally adopt a work plan.

20. The Secretariat also embarked on the following two projects which are expected to contribute to the promotion and facilitation of technical and scientific cooperation.

A. Biodiversity Innovation and Solutions Fair

21. The Secretariat embarked on the organization of a "Biodiversity Innovation and Solutions Fair" at the fourteenth meeting of the Conference of the Parties, in Sharm El-Sheikh, Egypt, in November 2018. The overall goal of the Fair is to inspire, facilitate access to, and promote the application of relevant technologies and innovative solutions that could be leveraged to solve vexing biodiversity challenges to better achieve biodiversity conservation. The specific objectives of the Fair are to:

(i) Provide a platform to showcase state-of-the-art technologies, approaches and solutions relevant for the conservation and sustainable use of biological diversity;

(ii) Provide a forum for innovators and early adopters of relevant conservation technologies to share their experiences in an interactive setting;

(iii) Foster dialogue, inspire partnerships and facilitate matchmaking among Parties and relevant stakeholders, with special attention to the private sector, public private partnerships and recognized centres of expertise cooperating with the Convention, to create stronger alliances for nature;

(iv) Demonstrate new mediums such as video games, hand-held applications and other immersive technologies that can be leveraged to better educate, engage and rally the public around the need to safeguard biodiversity and live in harmony with nature;

(v) Inform and shape the preparation of the post-2020 biodiversity agenda by highlighting the opportunities offered by biodiversity innovations and solutions in supporting transformational change.

22. Over the course of 5 months, the Secretariat reached out to and invited well over 100 companies, start-ups, non-governmental organizations and academic institutions to participate in the fair. The Government of Egypt offered 10 free spaces for the fair that will be used by 20 exhibitors over a two-week period. In addition to the exhibition, two side events have also been organized to allow a subset of exhibitors to further engage in a dialogue on the potential and benefits of technology in the context of the Convention (please refer to the footnote for further information on the events that have been organized as part of the fair).[8] Due to the lack of funding for this event, the Secretariat was not able to support the participation of the more than 40 exhibitors that expressed interest. This fair will be used to test and refine the approach with the view of organizing a much larger expo at the fifteenth meeting of the Conference of the Parties in China, subject to the availability of funding.

B. BioStories Video Game Project

23. Over the past 5 months the Secretariat has been working on the development of video game to demonstrate how technologies can be leveraged to support decision-making processes, demonstrate conservation best practices and promote a greater awareness of key biodiversity issues. The specific objectives of the project are:

a. To test out the use of gaming as a means of showcasing some of the latest technologies that can be leveraged by the wider conservation community, including national parks, to help them do their work more effectively;

[8] See https://www.cbd.int/conferences/2018/parallel-meetings/innovation-fair

b. To use gaming to demonstrate good conservation practices and operating procedures;

c. To explore the use of video games as an dynamic tool for communicating key biodiversity issues and targets to young adults (13 to 21 years of age); and

d. To provide an education tool that classrooms can leverage as part of their international curriculum and environmental education.

24. With limited funding from the Bio-Bridge Initiative, the Secretariat engaged two software developers and a team of student volunteers from a leading video game school in Montreal, to embark on the development of the first chapter of a multi-episode game on key biodiversity issues and targets. The first chapter, which is organized around a series of 7 missions centred around Aichi Biodiversity Target 12, explores the key drivers of poaching. A trailer of Chapter 1 and draft version of the game, comprising 3 missions and a tutorial, will be deployed during the Biodiversity Innovation and Solutions Fair at the UN Biodiversity Conference.[9] Subject to the availability of funding, the Secretariat plans to complete Chapter 1 by the first quarter of 2019 and subsequently work on the development of additional chapters with a view of launching the entire video game by COP15 in China in 2020.

[9] See https://biostoriescontact.wixsite.com/videogame

Annex 1

Bio-Bridge Initiative Demonstration Projects

Second Round of Projects			
Parties	**Project Title**	**Project Summary**	**Status**
Belarus in collaboration with Armenia, Kazakhstan, Lithuania, Moldova, Tajikistan, and Ukraine	Transfer of DNA Barcoding Technology for Genetic Inventory and Identification of Rare and Endangered Species	This project promoted cooperation between Belarus and other Central and Eastern European countries and Central Asian Republics (Armenia, Kazakhstan, Lithuania, Moldova, Tajikistan and Ukraine) on the use of modern molecular genetic technologies – such as DNA Barcoding - for the identification of species taxonomy and monitoring of biodiversity. Catalytic support through the Bio-Bridge Initiative contributed to increased institutional capacities of key stakeholders within the region on the use of this technology, the establishment of a Regional Reference Library of DNA Barcodes, and the strengthening of scientific networks that will be better equipped to promote the application of DNA Barcoding in the region.	**Completed**
China in collaboration with Republic of Korea, Thailand, Vietnam, Malaysia, and Nepal	Promoting Cooperation to Protect Traditional Knowledge through a Defensive Strategy in China and Other Countries in Asia	This project fostered cooperation between local communities in different regions of China and key institutions from Southeast Asia on the documentation and protection of traditional knowledge associated with genetic resources in the framework of the Nagoya Protocol. Local communities have cultivated a wide variety of traditional medicines, crops, livestock, and other plants over the centuries. Support from the Bio-Bridge Initiative led to (i) better documentation of the traditional knowledge and a series of case studies associated with biological and genetic resources in Xiangxi Tujia and Miao Autonomous Prefecture, Hunan Province; and (ii) long-term cooperation on traditional knowledge within the region based on lessons learned and best practices with institutions doing similar work in Asia.	**Completed**
Colombia in collaboration with Brazil, Mexico, and South Africa	Cooperation on Biodiversity Data Management for Species and Ecosystem Assessments	The project involved a technical exchange between biodiversity institutions of four megadiverse countries in the following subjects: management of threatened and invasive species, biodiversity informatics and ecosystem integrity assessment. Bio-Bridge Initiative resources were used to organize two workshops in Bogota addressing topics of interest that can be solved through informatics. One of the main results of the project is the	**Completed**

		establishment of "Coders4conservation" network. The investment of catalytic funds led to project specific products such as an Ecosystem Integrity methodology and the adaptation of the MadMex Antares3 system.	
Ghana in collaboration with Gambia, Liberia, Nigeria, and Sierra Leone	Cooperation for Development of Ecosystem Natural Capital Accounts in Anglophone West African Countries	This project fostered technical and scientific cooperation between Ghana and other Anglophone West African countries (Gambia, Liberia, Nigeria, and Sierra Leone) on natural resources valuation and Ecosystem-Natural Capital Accounting. The Bio-Bridge Initiative supported a workshop to develop national and regional capacities to take full account of the contribution of natural resources and ecosystem services in national accounting systems and to GDP. This project will give countries the necessary foundation to measure and value the environment to support sound macroeconomic policies for development.	**Completed**
India[10] in collaboration with Republic of Korea	Asian Big Cats' Conservation through Technology Sharing and the Use of Unified DNA Typing Methodology	The project strengthened cooperation between institutions in India and the Republic of Korea to develop technologies and standardized methods that are vital to the conservation and rehabilitation of big cats throughout Asia. It promoted the use of technologies (including DNA typing and microsatellite markers) to promote the conservation of the Asian Big Cats (tiger, lion, leopard, snow leopard, and clouded leopard) and combat poaching and illegal wildlife trade. The main outcomes included the training of scientific staff at regional wildlife institutions in India on different aspects of conservation genetics, the establishment of the regional wildlife genetic facilities in India and the cultivation of scientific cooperation and synergism among different stakeholders in India to establish standardized STR typing methodologies for Asian big cats.	**Completed**
Malawi in collaboration with Uganda	Integrating Biodiversity Values into National, Sectoral and Local Development Policies and Plans	The overall objective of this project is to foster long-term cooperation between Malawi and Uganda on the assessment and integration of biodiversity values into national, sectoral and local development policies, plans and accounting systems. Specifically, the Bio-Bridge Initiative will support the establishment of a national task force in each country, consultative meetings, technical training and experience-sharing between experts of the two countries with a view to create stronger partnerships and	**In Progress - scheduled to be brought to a successful closure by Q1 2019.**

[10] Though this project proposal was originally submitted to BBI, a separate funding agreement was negotiated between Indian and South Korean counterparts.

		deeper cooperation on these issues in the project area.	
Morocco in collaboration with Algeria, Benin, Cameroon, Comoros, Côte d'Ivoire, DR Congo Madagascar, Niger, and Rwanda	Establishment of an African Legal Network on Access and Benefit-Sharing (ABS) in Morocco and Participating French-Speaking African Countries	Through the leadership of Morocco, this project established a network among 10 French-speaking African countries (Algeria, Benin, Cameroon, Comoros, Côte d'Ivoire, Madagascar, Niger, Democratic Republic of Congo, Rwanda, and Morocco) with a view to promoting the design and implementation of ABS legislative, administrative and policy measures. The network will complement ongoing capacity development activities by facilitating exchange of knowledge and experiences of highly qualified ABS legal experts through South-South cooperation in the targeted countries.	**Completed**
Zimbabwe in collaboration with Botswana and South Africa	Development of a Biodiversity Genetic Database and Use of DNA Barcoding Technology for Identification of Alien and Endangered Species	The scope of the project is to strengthen regional collaboration on the establishment of a regional biobank of invasive alien species. Catalytic support through the Bio-Bridge Initiative will focus on the strengthening of institutional capacities in Zimbabwe through collaboration with subject matter experts from South Africa and Botswana, and the subsequent development of a detailed proposal for a follow-up long-term cooperation project on the establishment of a multilateral biobank of alien invasive species in the Southern African Development Community region. The Bio-Bridge Initiative will support collaboration among relevant stakeholders through training, on-the-job learning, mentorship, and sharing of available infrastructure and equipment.	**Completed**

Annex 2
Summary Analysis of the Priority Needs Identified During the Regional BBI Round Tables

IDENTIFIED NEEDS – TECHNICAL AND SCIENTIFIC COOPERATION		NUMBER OF COUNTRIES	AFRICA 29 countries + IPLCs	ASIA 21 countries + IPLCs	CENTRAL EUROPE & CENTRAL ASIA 12 countries + IPLCs	LATIN AMERICA & CARIBBEAN 20 countries + IPLCs
1	**Invasive Alien Species** Distribution of invasive species Management plans Development of methodology for early detection and monitoring	45 (52.3%) across all regions	15 countries (50%) Botswana, Burkina Faso, Burundi, Cameroon, Egypt, Ethiopia, Ghana, Liberia, Malawi, Senegal, Tunisia, Uganda, Zambia, Zimbabwe	11 countries (50%) China, Jordan, Kuwait, Malaysia, Mongolia, Myanmar, Nauru, Pakistan, Palau, Solomon Islands, Tuvalu	3 countries + IPLCs (30.8%) Georgia, Moldova, Ukraine, IPLCs	15 countries (71.4%) Antigua and Barbuda, Barbados, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Mexico, Paraguay, St. Kitts and Nevis, St. Lucia, Uruguay, Venezuela
2	**Protected Areas Management and Tourism**	38 (44.2%) across all regions	15 countries (50%) Burkina Faso, Chad, Comoros, Djibouti, Egypt, Ethiopia, Ghana, Liberia, Madagascar, Mali, Mozambique, Niger, Senegal, South Africa, Uganda	7 countries (31.8%) China, Jordan, Maldives, Mongolia, Myanmar, Palau, Solomon Islands	3 countries (23.1%) Azerbaijan, Serbia, Tajikistan	12 countries + IPLCs (61.9%) Antigua and Barbuda, Brazil, Colombia, Dominican Republic, Ecuador, Panama, Paraguay, St. Kitts and Nevis, St. Lucia, Suriname, Uruguay, Venezuela, IPLCs
3	**Access and Benefit-Sharing** Inventory of genetic resources Bioprospecting	35 (40.7%) across all regions	18 countries (60%) Botswana, Burkina Faso, Burundi, Chad, Comoros, Djibouti, Egypt, Madagascar, Malawi, Mali, Mozambique, Niger, Senegal, Sierra Leone, South Africa, Tunisia, Uganda, Zambia	8 countries (36.3%) Bangladesh, Bhutan, India, Iraq, Jordan, Maldives, Mongolia, Pakistan	1 country (7.7%) Turkmenistan	7 countries + IPLCs (38.1%) Barbados, Belize, Ecuador El Salvador, Guatemala, Panama, Paraguay, St. Lucia, IPLCs
4	**Biodiversity Monitoring and Assessment** Systems, mechanisms and tools/technologies DNA barcoding	32 (37.2%) across all regions	8 countries (26.6%) Botswana, Burundi, Ethiopia, Mozambique, Niger, Senegal Uganda, Zimbabwe	7 countries + IPLCs (36.3%) Bangladesh, China, India, Kuwait, Malaysia, Mongolia, Palau, IPLCs	4 countries (30.8%) Belarus, Moldova, Georgia, Ukraine	12 countries (57.1%) Bahamas, Barbados, Belize, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Mexico, St. Kitts and Nevis, St. Lucia, Suriname

5	**Ecosystem Restoration** Marine ecosystems Forests	32 (37.2%) across all regions	17 countries (56.6%) Burkina Faso, Cameroon, Chad, Comoros, Egypt, Ethiopia, Gabon, Liberia, Madagascar, Malawi, Mali, Niger, Senegal, Sierra Leone, South Africa, Tunisia, Zimbabwe	3 countries (13.6%) Bangladesh, Iraq, Jordan	N/A	11 countries + IPLCs (57.1%) Belize, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Panama, Paraguay, St. Kitts and Nevis, Uruguay, IPLCs
6	**Ecosystem Valuation and Accounting** Green economy	31 (36%) across all regions	8 countries (26.6%) Egypt, Gabon, Liberia, Malawi, Mozambique, South Africa, Uganda, Zimbabwe	6 countries (27.3%) Bhutan, China, Malaysia, Maldives, Myanmar, Tuvalu	7 countries (53.8%) Slovakia, Azerbaijan, Moldova, Georgia, Tajikistan, Ukraine, Kyrgyzstan	9 countries + IPLCs (47.6%) Barbados, Brazil, Costa Rica, Cuba, Ecuador, Mexico, St. Lucia, Uruguay, Venezuela, IPLCs
7	**Biodiversity Information Systems / Knowledge Management** National CHMs Databases	30 (34.9%) across all regions	12 countries (13.9%) Botswana, Burkina Faso, Chad, Comoros, Egypt, Ethiopia, Malawi, Senegal, Sierra Leone, Somalia, Tunisia, Uganda	N/A	4 countries (30.8%) Slovakia, Moldova, Serbia, Kyrgyzstan	13 countries + IPLCs (66.6%) Guatemala, Panama, Mexico, St. Lucia, Costa Rica, Colombia, Cuba, El Salvador, Ecuador, Suriname, Bahamas, Barbados, Antigua and Barbuda, Uruguay, IPLCs
8	**Climate Change and Biodiversity**	26 (30.2%) across all regions	11 countries (12.8%) Botswana, Cameroon, Comoros, Egypt, Ethiopia, Ghana, Madagascar, Mali, Niger, South Africa, Uganda	4 countries (18.2%) Bangladesh, Bhutan, Jordan, Malaysia	1 country + IPLCs (15.4%) Serbia, IPLCs	9 countries (42.8%) Antigua and Barbuda, Belize, Colombia, Costa Rica, Cuba, Guatemala, Mexico, Paraguay, St. Lucia
9	**Biosafety** Living modified organisms	22 (25.6%) across all regions	10 countries (30.3%) Burkina Faso, Djibouti, Egypt, Gabon, Ghana, Malawi, Mali, Tunisia, Uganda, Zimbabwe	5 countries (22.7%) Indonesia, Jordan, Malaysia, Nauru, Solomon Islands	3 countries (23.1%) Turkmenistan, Belarus, Moldova	4 countries (19%) Bahamas, Barbados, Ecuador, Venezuela

10	**Protection and Recovery of Threatened Species** Recovery plans	18 (20.9%) across all regions	N/A	2 countries (9%) Mongolia, Solomon Islands	3 countries (23.1%) Turkmenistan, Poland, Azerbaijan	12 countries + IPLCs (61.9%) Antigua and Barbuda, Belize, Brazil, Costa Rica, Cuba, Dominican Republic, Guatemala, Mexico, Panama, Paraguay, Suriname, Uruguay, IPLCs
11	**Control of Wildlife Trade** Illegal trade Enforcement Sustainable use	16 (18.6%) across all regions	N/A	N/A	1 country (7.7%) Georgia	14 countries + IPLCs (71.4%) Antigua and Barbuda, Belize, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Mexico, Panama, Paraguay, Peru, Venezuela, IPLCs
12	**Agriculture Biodiversity** Conservation of genetic resources Food security	11 (12.8%)	4 countries (13.3%) Botswana, Cameroon, Ethiopia, Gabon	1 country (4.5%) Bhutan	N/A	5 countries + IPLCs (28.6%) Belize, Cuba, Guatemala, Mexico, Uruguay, IPLCs
13	**Traditional Knowledge and Community-Based Monitoring**	5 (5.8%)	N/A	IPLCs (4.5%) IPLCs	3 countries + IPLCs (30.8%) Turkmenistan, Belarus, Tajikistan, IPLCs	N/A
14	**Pollution control**	4 (4.6%)	4 countries (13.3%) Burkina Faso, Djibouti, Egypt, Niger	N/A	N/A	N/A