

Chapter 12

Practical Use of Triangular Cooperation as Part of the Capacity Development Process to Strengthen a Leader Country on Biodiversity Conservation in a Region: A Case of the BBEC Programme in Sabah, Malaysia

Motohiro Hasegawa

1. Introduction

1.1 International trends in biodiversity conservation

Biological diversity is the source of many ecosystem goods such as food, water, genetic resources and so on and therefore its loss poses serious threats to human security and well-being. It affects a variety of ecosystem services such as provisioning (food, water and medicine), regulating (flood and disease control), cultural (spiritual, recreational and religious values) and supporting (nutrient cycle and global climate) services, and increases the difficulty in achieving international targets such as the Millennium Development Goals (MDGs) (MA, 2005).

Despite such interrelation between biodiversity and social issues, it was noted at the tenth meeting of the Conference of the Parties (COP 10) to the Convention of Biological Diversity (CBD) in 2010 that there had been insufficient attempts to integrate biodiversity issues into broader policies, strategies and programs (SCBD 2010). In response to this call for international action, at the CBD COP 10 in October 2010 the global community adopted the Strategic Plan for Biodiversity and Aichi Biodiversity Targets, and then, at a meeting of the General Assembly in March 2011, the United Nations declared the United Nations Decade on Biodiversity (2011–2020), aiming for an intensive implementation of the Strategic Plan to attain the targets by 2020 (United Nations 2011). Recognizing the lack of public awareness about biodiversity conservation being one of the most fundamental and serious environmental issues, the Strategic Plan and Targets highlighted the importance of mainstreaming biodiversity concerns not only in governments but also

in other sectors of the society through communication, education, awareness raising, appropriate incentive measures, and institutional change.

1.2 Objective of the case study in Sabah, Malaysia

This case study aims to discuss the significance and effects of South-South and triangular cooperation based on the outcome of the Bornean Biodiversity and Ecosystems Conservation (BBEC) Programme implemented in Sabah, Malaysia between 2002 and 2012. The BBEC Programme consisted of technical assistance provided by the Japan International Cooperation Agency (JICA) under the umbrella of Japan's Official Development Assistance (ODA). It comprised two distinct phases: technology transfer in BBEC I (2002–2007); and policy assistance in BBEC II (2007–2012).

The two-phased BBEC Programme employed a practical approach to the operation of capacity development (CD), highlighting a variety of activities in which the counterparts¹ would receive international recognition that could increase their confidence and raise their levels of self-esteem in practicing conservation in Sabah. On the basis of the conventional technology transfer on biodiversity conservation in the first phase, BBEC II proposed and practiced extended activities, including the registration of specific ecosystems of Sabah under international initiatives such as the Ramsar Convention and the Man and the Biosphere (MAB) Programme of the United Nations Educational, Scientific and Cultural Organization's (UNESCO). The registration processes were Sabah's collective effort to strengthen their conservation capacity, and such empirical learning process was shared with other countries through triangular cooperation programs such as the third country training program (TCTP) and an international symposium in Sabah, the Asian Wetland Symposium (AWS). This paper illustrates the potential for triangular cooperation, using the BBEC Programme as its case study in the context of the CD process in conditions of bilateral cooperation.

1. Biodiversity-related Sabah state agencies and the Institute for Tropical Biology and Conservation (ITBC) of Universiti Malaysia Sabah (UMS).

2. Regional Approach to Biodiversity Conservation: CD Focused on Potential Regional Leader Countries

While biodiversity varies across both time and space, it does share some key characteristics in geographical ranges irrespective of national boundaries. These similarities can be identified using physical (topographic features), climatic (latitudinal variation and seasonal ranges), ecological (forest types), and cultural (tradition and lifestyle) features. International assistance would be effective if potential leader countries in the area of biodiversity conservation in the South are selected for a program of intensive capacity development with the long-term aim of knowledge sharing to assist other developing countries through a policy of triangular cooperation, particularly within their regions (regional approach).

The primary objective of the BBEC Programme was to strengthen Sabah's conservation capacity by developing an integrated and durable system for the implementation of biodiversity and ecosystem conservation (BBEC II Secretariat 2008). To develop a state-wide conservation system integrating various management activities on different ecological elements such as land, water, forests, and wildlife, several responsible agencies needed to be coordinated in a synergistic collective decision-making process. In the development of such a process, the creation of an interagency platform was crucial for the smooth operation of cross-sectoral activities.

2.1 CD process of the BBEC Programme

CD is generally defined as a process in which individuals, organizations/institutions and societies develop abilities, either individually or collectively, to perform functions, solve problems, and achieve objectives by counterparts without outsiders' assistance (JICA 2004). The concept of CD is based on holistic and systematic perspectives of international cooperation rather than on an individual activity or project focusing on particular technical skills and needs. The main approach of JICA's CD process is to emphasize actions by motivating various stakeholders to facilitate spontaneous self-help efforts, while an outside aid agent is expected to play catalytic roles in strengthening the capacity of the counterparts. To promote the practical application of the basic concept of CD, the BBEC Programme took a step-wise program approach, where capacity building on the basic skills and knowledge required in conservation practice were transferred from individual to

organizational/institutional levels for the key agencies during BBEC I, thereby paving the way for more challenging BBEC II which aimed to integrate all of the biodiversity-related agencies in Sabah.

In BBEC II, the focus shifted to policy assistance to create a state-wide conservation platform for interagency collaboration through the establishment of the Sabah Biodiversity Council (Council) and the Sabah Biodiversity Centre (SaBC) as stipulated in the Sabah Biodiversity Enactment 2000 (SBE 2000). The Council is an ad hoc state decision-making body composed of the heads of biodiversity-related agencies which is intended to function as the state conservation platform with the remit of managing Sabah's biological resources of Sabah. SaBC is expected to function as the Secretariat for the Council with its vital role of organizing council meetings and initiating programs for the sustainable use of biological resources. Therefore, the strengthening of SaBC's capacity to coordinate biodiversity-related agencies for synergy was one of the core activities in the CD process of BBEC II.

2.2 Overview of the BBEC Programme

BBEC I aimed to develop a conservation approach as a mid-term goal, working closely with the four key agencies listed in Table 1 (component-based approach). By contrast, BBEC II had a long-term goal to develop a state-wide conservation system with all biodiversity-related agencies. Under BBEC II, much of the focus was given to conservation actions that addressed common interests for stakeholders such as the international registration of specific ecosystems under the Ramsar Convention and UNESCO's MAB Programme. The registration process required extensive interagency coordination and was regarded as a shared task for a number of agencies. The progress of the process was coordinated, supported, and monitored by SaBC through the conservation platform, with the Council playing a part in the CD process to enhance the state's capacity to administer interagency collaboration for integrated conservation (task-based approach).

Table 1. The basic setup of BBEC I and BBEC II

	BBEC I (2002–2007) Component-based Approach	BBEC II (2007–2012) Task-based Approach
1. Purpose	To establish a comprehensive and sustainable approach of conservation	To establish and strengthen a conservation system for biodiversity and ecosystems in Sabah and nurture the state's knowledge sharing capacity within the region
2. Approach & Counterpart Agencies	Component-oriented technology transfer mainly to the following agencies: (1) Research and Education Component (REC): Institute for Tropical Biology and Conservation (ITBC), Universiti Malaysia Sabah (UMS) (2) Park Management Component (PMC): Sabah Parks (SPs) (3) Habitat Management Component (HMC): Sabah Wildlife Department (SWD) (4) Public Awareness Component (PAC): Unit of Science and Technology (UST)	Task-oriented policy assistance with incentives such as international registration with the Ramsar Convention and UNESCO's Man and the Biosphere (MAB) Programme to the following biodiversity-related agencies: (1) The four agencies in Phase I (2) Natural Resources Office (NRO) (3) Sabah Biodiversity Centre (SaBC) (4) Sabah Forestry Department (SFD) (5) Other biodiversity-related state agencies (Dept. of Irrigation and Drainage, Environment Protection Department, etc.)

(1) BBEC I: Technology transfer

Technology transfer is usually a resource-intensive process since it requires full-time advisors to provide day-to-day technical support to counterpart personnel. BBEC I provided it mainly to the four key counterpart agencies (Table 1). For example, JICA dispatched long-term (≥ 1 year) Japanese advisors to the respective leading agencies of the four components for a period of five years. A variety of short-term advisors (< 1 year) were also sent in to address specific technical requests. In total, 52 advisors (approximately 400 person-month) including 19 long-term advisors were dispatched to Sabah under BBEC I (JICA 2006). The output of the four components is summarized as follows (JICA, 2008).

The Research and Education Component (REC) of BBEC I concentrated on strengthening technical skills, including the methodology of field data collection, taxonomy, and the establishment of permanent ecological monitoring plots through joint fieldwork. A total of five major scientific expeditions to protected rainforests and other ecosystems were conducted under the leadership of the Institute for Tropical Biology and Conservation of Universiti Malaysia Sabah (ITBC-UMS). These resulted in the collection of approximately 35,000 specimens of plants and animals, and the publication of at least 29 papers (JICA 2008).

In the Park Management Component (PMC), Sabah Parks (SPs) carried out substantial activities in the Crocker Range Park (CRP) with one of the key outcomes being the development of basic skills in social surveys and the understanding of a community-based approach in the protected area (that is, park) management. JICA provided technical assistance to SPs in the preparation of a CRP management plan (Sabah Parks 2006).

In the Habitat Management Component (HMC), Sabah Wildlife Department (SWD) selected key wildlife species (i.e. the Orang-utan, the Bornean pigmy elephant, the Banteng (Tembadau), and the Proboscis monkey) for intensive conservation actions. SWD strengthened their survey and analytical skills in relation to population dynamics, wildlife behavior, and habitats. The participation of local communities in conservation activity was enhanced by the establishment of links between ecotourism and an honorary wildlife warden system, with local villagers being certified as temporary wildlife rangers or game wardens and assigned to conduct management actions in remote areas.

The Public Awareness Component (PAC) was headed by the Unit of Science and Technology (UST) who worked closely with schoolteachers and journalists to develop a practitioners' network called the Sabah Environmental Education Network (SEEN). One key outcome of this collaboration was the drafting of the Sabah Environmental Education Policy.

The final evaluation of BBEC I concluded that the component-based approach delivered satisfactory outcomes (JICA 2006). However, it also highlighted that the management committee was an interim setup designed solely for the purpose of managing the program or project, suggesting that a legitimate and more durable entity be developed as

part of a conservation system to coordinate cross-sectoral management actions.

(2) BBEC II: Policy assistance

JICA's input in BBEC II was much less than it had been in BBEC I, as the former focused more on policy implementation than on resource-intensive technology transfer. In total, six long-term advisors and nine short-term advisors were sent to Sabah under BBEC II.

Output 1 of BBEC II functioned as the overall framework for developing an integrated conservation system, and Outputs 2 and 3 worked as pilot actions intended to strengthen the system based on SBE 2000 (Table 2). The Council's first meeting took place in December 2007, seven years after the adoption of SBE 2000, in which the Council members agreed that SaBC should be established promptly and officially under the purview of the Natural Resources Office (NRO). SaBC was officially launched under NRO in May 2008 with six officers. As a legitimate state agency with the explicit intention of operating interagency coordination in handling cross-cutting issues of biodiversity conservation in Sabah, SaBC became one of JICA's main counterpart agencies under BBEC II (BBEC II Secretariat 2012).

Table 2. Brief summary of the outputs and major activities of BBEC II

Outputs	Activities
<p><u>Output 1</u> The capacity of the Sabah State strengthened in planning, coordinating, and promoting biodiversity and ecosystem conservation activities</p>	<p>Establishment of the Council and SaBC as a conservation platform and strengthening of its institutional capacity through interagency coordination to implement the pilot actions of Outputs 2 and 3</p>
<p><u>Output 2</u> The capacity of Sabah state agencies and UMS enhanced in implementing biodiversity and ecosystem conservation activities for protected areas such as state parks, wildlife conservation areas, and forest reserves</p>	<p>(1) River Basin Management: Registration of a wetland under the Ramsar Convention (2) Integrated Protected Area Management : Registration of Crocker Range Park with surrounding areas under UNESCO's MAB Programme</p>
<p><u>Output 3</u> The capacity of Sabah State agencies and ITBC-UMS enhanced in providing training on biodiversity and ecosystem conservations</p>	<p>Third country training programme (TCTP)</p>

In consideration of a key factor in Output 2, delivering institutional benefits to all counterpart agencies, actions were strategically aligned towards the common interests of all agencies. International registration under the Ramsar Convention and UNESCO's MAB Programme functioned as an incentive for many agencies, mostly because of its high-profile recognition and because they marked the first such attempts in Sabah (Table 3). SaBC took charge of coordinating all the counterpart agencies with respective roles and functions in the context of river basin management (including the Ramsar designation) and integrated protected area management (including the MAB nomination). The registration process with SaBC's interagency coordination was considered a strategy to strengthen their institutional capacity; it functioned as a learning experience not only for the counterpart agencies but also for JICA as a facilitator/catalyst in BBEC II.

Table 3. Brief summary of the activities related to the Ramsar Convention and UNESCO's MAB Programme

	Ramsar Convention	UNESCO's MAB Programme
2008	1 st Ramsar site, Lower Kinabatangan-Segama Wetlands, registered at the Ramsar COP 10 in Korea	1 st study tour to an MAB site in Indonesia (joined by SaBC and SPs)
2009–2010	Management planning with approximately 15 agencies	<ul style="list-style-type: none"> • Working committee for the 1st MAB nomination established (approximately 17 agencies participated) • Preparation of nomination form
2011	Management Plan for the Ramsar site approved by the Council and State Cabinet of Sabah	<ul style="list-style-type: none"> • Public consultation participated by heads of 257 villages, approximately 65% of the villages within the whole MAB area • 1st nomination form approved by the State cabinet of Sabah & submitted to the Federal Government of Malaysia

Output 3 of BBEC II reflected two objectives of triangular cooperation: (1) to share the experience and knowledge gained from the BBEC Programme with other countries through TCTP, and (2) to deepen

counterparts' understanding of integrated biodiversity conservation in the teaching and sharing process. TCTP worked as an efficient mode of bilateral cooperation by extending impact to multiple countries. The counterparts were observed to contemplate on what they had learned since 2002 and increased their confidence in their knowledge and conservation actions in Sabah.

3. Triangular Cooperation through the BBEC Programme in Sabah, Malaysia

Triangular cooperation to extend the impacts of the bilateral CD process to other countries was practiced through TCTP and AWS in Sabah as part of the BBEC Programme. Experience shows that replication of a similar CD process can be used in other parts of the world as an effective strategy for bilateral aid agencies to make global contributions.

3.1 Third Country Training Program (TCTP)

A third country training program (TCTP) is a group-style training offered jointly by JICA and a partner country on a cost-sharing basis. It aims to transfer learning experience and knowledge accumulated in economically advanced ODA recipient countries such as Malaysia (the second country) to other countries (the third country). The idea is to use the traditional North-South cooperation method to promote the South-South learning process by enhancing the leading capacity of a pivotal country in a region, which would then extend its assistance to other countries. To this end, TCTP in the CD process of the BBEC Programme was expected to function as:

- (1) An effective strategy in which the ODA recipient counterpart (that is, Sabah) will strengthen ownership/confidence and refine their knowledge on biodiversity conservation in the process of passing it on to others; and
- (2) An efficient mechanism/platform for knowledge sharing with other countries, particularly those within the region due to their likely similarities in language, culture, climate, environment in terms of biodiversity and ecosystems (regional approach).

TCTP was conducted in the latter half of the BBEC Programme, drawing heavily on the basis of knowledge that the counterparts had obtained during BBEC I. BBEC II originally launched TCTP with the aim of enhancing the training capacity of the counterpart agencies as part of

Output 3 (Table 2). TCTP of BBEC II was implemented according to the aspirations of the Federal Government of Malaysia through its national focal point, initially the Federal Economic Planning Unit and later shifting to the Ministry of Foreign Affairs (MOFA). The cost of implementing TCTP under BBEC II was shared equally between Japan (JICA) and Malaysia (MOFA).

ITBC-UMS was in charge of the implementation of TCTP with the support of other BBEC II member agencies including SaBC. The outline of TCTP with five modules is listed in Table 4. The main message delivered in the training course was the importance of “integration” of various activities in biodiversity conservation. It was composed of lectures, seminars, and field visits to various types of ecosystem, with different agencies introducing a variety of practical conservation activities. Throughout the training, the importance of developing a durable mechanism for interagency coordination for synergy was addressed. A total of 55 trainees from 16 countries were invited to Sabah in three years.



TCTP in October 2011
(participants from 11 countries)



Lecture in a classroom

Table 4. Outline of TCTP in Sabah, Malaysia

1. Title	Integrated Biodiversity and Ecosystem Management
2. Duration	Approximately three weeks, once a year in 2009, 2010 and 2011
3. Target participants	Middle-level management officers of government departments and agencies, who work on biodiversity and ecosystem conservation
4. Training modules	(1) Research and education, (2) Park management, (3) Habitat management, (4) Public awareness and (5) Integrated approach in conservation

5. Invited countries	<p><u>2009:</u> (1) Cambodia, (2) Laos, (3) Sri Lanka, and (4) Kenya</p> <p><u>2010:</u> (1) Indonesia, (2) Philippines, (3) Papua New Guinea, (4) Vietnam, (5) Tanzania, and (6) Sarawak, Johor and Selangor (Malaysia)</p> <p><u>2011:</u> (1) Brunei Darussalam, (2) Indonesia, (3) Myanmar, (4) Thailand, (5) India, (6) Mali, (7) Uganda, (8) Zambia, (9) Tanzania, (10) Kenya, and (11) Papua New Guinea</p>
----------------------	--

While the participants of TCTP varied from year to year, approximately half of them were from ASEAN countries (all ASEAN members but one, Singapore, participated), reflecting the emphasis on the regional approach in triangular cooperation. In this respect, each year a lecturer was invited from the ASEAN Centre for Biodiversity (ACB) to promote regional linkages among the ASEAN member states within the existing framework on biodiversity conservation. Countries outside the region were selected on the basis of their experience in implementing conservation-related projects with JICA. Training participants from other states of Malaysia (Sarawak, Johor and Selangor) were also invited in the second year of TCTP. It is noteworthy that Indonesia clearly found its participation quite useful in 2010, sending trainees at its own expense in 2011.

TCTP required approximately seven months for its preparation each year, during which more than ten interagency meetings were organized to develop a curriculum, make logistics arrangements, and so on. The preparatory work included a fact-finding mission to visit the countries prior to invitation, such as Kenya, Sri Lanka, Cambodia and Laos. The mission proved to be successful in recruiting enthusiastic participants and motivating the implementing agencies in Sabah.

In the third year of TCTP, training participants from Kenya, Papua New Guinea and Tanzania who had participated in the first and second years of TCTP were invited to Sabah as resource persons to share their experiences of how they had applied their learning experience of TCTP in practice in their home countries. They highlighted the importance and difficulty of implementing joint actions of multiple agencies, linking management actions between the protected areas and their

surroundings, and community participation in conservation. All of these issues were addressed in TCTP but no simple or universal solutions were found for them. One of the ex-participants said that “creating an opportunity (such as TCTP) to bring researchers and practitioners together from different countries to share experience and knowledge on the ground gives us a great encouragement.”

Each year a questionnaire survey was conducted at the end of the training to measure the satisfaction level, which showed that over three years 87% of all participants (48 out of 55 trainees) rated TCTP as highly practical. The survey indicated that the participants felt that they learned effectively from close communication with the instructors who shared their practical knowledge obtained in their experience in the field. The program also offered a unique opportunity that has exposed the participants to the reality of challenges in conservation practice, for instance, around the Ramsar site in Kinabatangan where they observed the wildlife habitats almost surrounded by oil palm plantations. One of the objectives in conservation practice is to achieve win-win solutions in maintaining the quality of ecosystems and economic growth, and the training participants encountered some realistic examples which reflected the complexity of the issues under consideration.

3.2 Asian Wetland Symposium Sabah (AWS Sabah): Face-to-face learning opportunity

BBEC II participated in international platforms, one example of which was the Asian Wetland Symposium (AWA). AWS is a series of international symposia aimed at providing a regional platform for active discussions on conservation and the wise-use of wetland resources in Asia. It was internationally recognized in Resolution IX.19, adopted at the COP 9 of the Ramsar Convention in Uganda in 2005. The AWS symposia have been held in Japan (1992), Malaysia (2001), India (2005), and Vietnam (2008), and the Sabah State Government hosted it in 2011, with technical and financial support from JICA, under BBEC II.

All sessions were managed by the corresponding leading agencies of Sabah (BBEC II counterparts) who screened papers, presided over sessions, summarized the outcomes, and reported back to the plenary session as part of the CD process under BBEC II (Table 5). A total of 42 papers from 14 countries were presented in six sessions, with an additional special presentation, jointly organized by all the organizing

agencies in Sabah, on how the symposium theme “Integrated biodiversity conservation: Linking forests and wetlands” had been put into practice in Sabah. The symposium received 324 participants from 24 countries, and resulted in the publication of the “Sabah call for Action” (Sabah State Government 2011).

Table 5. Main sessions of the AWS Sabah 2011 (18-20 July)

Session	Leading Agency	Number of Papers Presented (42 papers from 14 countries)
1. Ramsar and CBD	Sabah Biodiversity Centre (SaBC)	Nine papers: Philippines (×2), Japan (×2), Bangladesh, Sri Lanka, India (×2), Malaysia
2. Regional approach to advance the implementation of the Ramsar and CBD	Institute for Tropical Biology and Conservation, Universiti Malaysia Sabah (ITBC -UMS)	Nine papers: Nepal, Malaysia (×2), Brunei, Japan (×2), Australia, Taiwan, Korea
3. Forests and wetlands	Sabah Forestry Department (SFD)	Eight papers: Australia, India, Malaysia (×2), Bangladesh, Japan, Philippines, Singapore
4. Business and biodiversity for wetland conservation	Sabah Wildlife Department (SWD)	Eight papers: Sri Lanka, Malaysia (×3), Indonesia, Philippines, Japan (×2)
5. CEPA for wetlands and biodiversity	Environment Protection Department (EPD)	Eight papers: Malaysia, Japan (×3), India (×2), Korea, China
6. Cultural heritage in forests and wetlands	Sabah Parks (SPs)	Eight papers: Nepal, Indonesia, Malaysia (×3), Thailand, Japan, Korea
7. Special Session for Sabah entitled “Many Players One Vision”	Department of Irrigation and Drainage (DID)	Sabah’s joint session including all state agencies

4. Implications and Lessons Learned

To deal with the complexity and dynamics of global issues, including

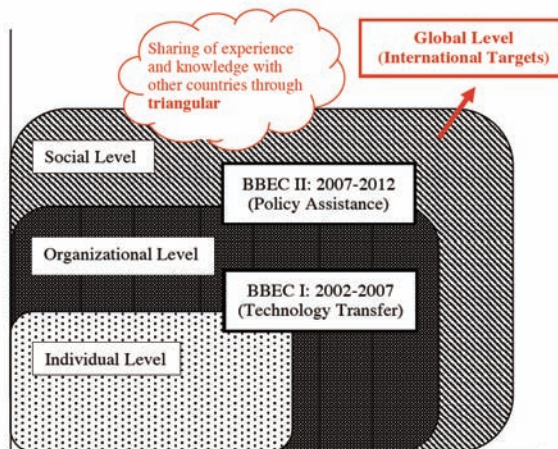
the loss of biodiversity, international cooperation (on either a bilateral or a multilateral basis) needs to work within the broad perspectives of contributing to internationally shared targets such as the MDGs and the Aichi Biodiversity Targets. While the conventional CD process is to strengthen individual, organizational and social capacity, the CD adopted by the BBEC Programme, combining technology transfer (BBEC I) and policy assistance (BBEC II) under a single program (program approach), uplifted the conservation capacity of Sabah to be able to make contributions to other countries. The two “tools,” triangular cooperation and international initiatives with shared targets, were found to be particularly useful in this CD process in terms of raising the outcome of the bilateral cooperation to an international standard (Figure 1).

First, the use of international initiatives such as the Ramsar Convention and UNESCO’s MAB Programme was effective in attracting attention and uniting a variety of stakeholders behind a common goal. Second, triangular cooperation such as TCTP and AWS was found to be an efficient learning process for the Malaysian counterparts as well as the stakeholders of other countries (Figure 1). However, it should be noted that the use of international initiatives and triangular cooperation may be considered as an advanced form or strategy of bilateral CD process to scale up the impacts because BBEC II with those tools was based on the conventional technology transfer of BBEC I. Hence, the traditional approach, such as adopted in BBEC I, is still valid and important, particularly at the initial stage of the CD process on biodiversity conservation.

To take effective actions on trans-boundary issues such as biodiversity conservation, the global community needs to identify more leading pivotal countries in regions with biodiversity hotspots (Figure 2). It has been recognized that countries with a higher income (those with GDP ranging from US\$5,000 to US\$8,000) have greater capacity to control deforestation based on the Environmental Kuznets Curve hypothesis (Lopez and Galinato 2005). The economic status of the developing countries may help identify potential leader countries for intensive capacity development in various regions. For example, those countries listed as Upper Middle-Income Countries in the Development Assistance Committee (DAC) List of ODA Recipients of the Organization for Economic Co-operation and Development (OECD)

may hold relatively higher potentials for south-south and triangular cooperation, since they are able to share their knowledge with other countries in regions that share biodiversity hotspots. It is, therefore, suggested that a regional strategy to strengthen the capacity of potential leader countries in triangular cooperation be prioritized as an efficient approach of international cooperation and also to expand the impact to a global level, contributing to international targets such as the MDGs and Aichi Biodiversity Targets (Figure 1).

Figure 1. The role of triangular cooperation in the CD process of the BBEC Programme

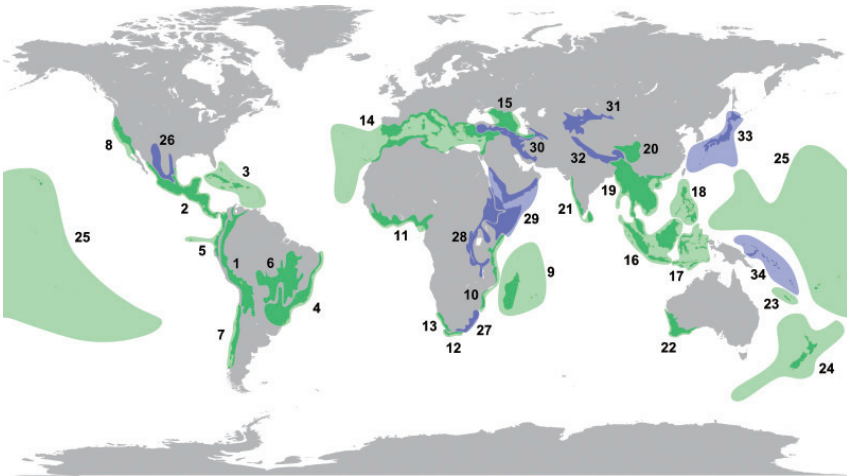


Source: Three levels in CD of JICA (modified from JICA 2004)

In conclusion, triangular cooperation has the potential to provide a variety of benefits for all concerned parties. First, bilateral aid agencies can use triangular cooperation to increase the significance and impacts of their assistance to a global level with minimum resources. Second, ODA recipient countries can enhance their knowledge and confidence by playing the provider's role in south-south and triangular cooperation. Third, individual participants (beneficiary) from various countries can be exposed to practical and tested knowledge and feasible actions of countries with similar conditions (for example, economic status, environment and culture). Last but not least, triangular cooperation and south-south cooperation can help the global community by assisting various regions to pursue international agreements (for example, the

Aichi Biodiversity Targets). The advantage of triangular cooperation and south-south cooperation cannot be overemphasized in cross-border issues such as biodiversity conservation, an area in which stakeholders usually work with limited resources.

Figure 2. The 34 hotspots as priority conservation areas



The 25 biodiversity hotspots (green) as indicated in Myers, N., *et al.* (2000)

1. The Tropical Andes	14. The Mediterranean Basin
2. Mesoamerica	15. The Caucasus
3. The Caribbean Islands	16. Sundaland
4. The Atlantic Forest	17. Wallacea
5. Tumbes–Chocó–Magdalena	18. The Philippines
6. The Cerrado	19. Indo-Burma
7. Chilean Winter Rainfall-Valdivian Forests	20. The Mountains of Southwest China
8. The California Floristic Province	21. Western Ghats and Sri Lanka
9. Madagascar and the Indian Ocean Islands	22. Southwest Australia
10. The Coastal Forests of Eastern Africa	23. New Caledonia
11. The Guinean Forests of West Africa	24. New Zealand
12. The Cape Floristic Region	25. Polynesia and Micronesia
13. The Succulent Karoo	

An additional nine hotspots (blue) have since been added: Lamoreux, J. F., *et al.* (2006)

Practical Use of Triangular Cooperation as Part of the Capacity Development Process
to Strengthen a Leader Country on Biodiversity Conservation in a Region:
A Case of the BBEC Programme in Sabah, Malaysia

26. The Madrean Pine-Oak Woodlands	31. The Mountains of Central Asia
27. Maputaland-Pondoland-Albany	32. Eastern Himalaya
28. The Eastern Afromontane	33. Japan
29. The Horn of Africa	34. East Melanesian Islands
30. The Irano-Anatolian	

References

- BBEC II Secretariat. 2008. *Guidebook of Bornean Biodiversity and Ecosystems Conservation Programme II (BBEC II) in the State of Sabah: The Basic Concept, Strategies and Plan*. Kota Kinabalu.
- BBEC II Secretariat. 2012. *Completion Report on the Bornean Biodiversity and Ecosystems Conservation (BBEC) Programme in Sabah, Malaysia*. Kota Kinabalu.
(http://www.bbec.sabah.gov.my/files/2012/bbec-completion-report/BBEC%20completion%20report_final.pdf).
- JICA (Japan International Cooperation Agency). 2004. *Capacity Development Handbook for JICA staff*, Task Force on Aid Approaches. Tokyo: JICA.
- JICA (Japan International Cooperation Agency). 2006. *Final Evaluation on the Bornean Biodiversity and Ecosystems Conservation Programme*, Department of Global Environment. Tokyo: JICA. (in Japanese).
- JICA (Japan International Cooperation Agency). 2008. *Programme Completion Report on Phase 1, Bornean Biodiversity and Ecosystem Conservation Programme in Sabah, Malaysia February 2002–January 2007*. Secretariat of BBEC. Kota Kinabalu, Sabah, Malaysia.
- Lamoreux, J.F., Morrison, J.C., Ricketts, T.H., Olson, D.M., Dinerstein, E., McKnight, M.W., Shugart, H.H. 2006. Global tests of biodiversity concordance and the importance of endemism. *Nature*, 440: 212–214.
- Lopez, R. and Galinato, G. 2005. Deforestation and Forest-Induced Carbon Dioxide Emissions in Tropical Countries: How Do Governance and Trade Openness Affect the Forest-Income Relationship? *Journal of Environment and Development*, 14(1): 73–100.
- MA (Millennium Ecosystem Assessment). 2005. *Ecosystems and Human Well-being: Biodiversity Synthesis*. Island Press. Washington D.C.
- Myers, N.R., Mittermeier, A., Mittermeier, C.G., Fonseca, G.A.B., and Kent, J. 2000. Biodiversity hotspots for conservation priorities. *Nature*, 403: 853–858.
- Sabah Parks. 2006. *Crocker Range Park Management Plan*, Bornean Biodiversity and Ecosystems Conservation Programme in Sabah, Malaysia.
- Sabah State Government. 2011. *Asian Wetland Symposium on Integrated Biodiversity Conservation*. Kota Kinabalu, Sabah, Malaysia (18-20 July 2011).
(<http://www.bbec.sabah.gov.my/japanese/downloads/2012/april/>)

Practical Use of Triangular Cooperation as Part of the Capacity Development Process
to Strengthen a Leader Country on Biodiversity Conservation in a Region:
A Case of the BBEC Programme in Sabah, Malaysia

sabah_call_for_action.pdf).

SCBD (Secretariat of the Convention on Biological Diversity). 2010. *Global Biodiversity Outlook 3*. Montreal.

United Nations. 2011. *Resolution Adopted by the General Assembly: 65/161. Convention on Biological Diversity*. General Assembly, Sixty-fifth Session, Agenda Item 20 (f). New York: UN.