Successful Models of Non-Governmental Organizations in Consultative Status: Best Practices on Climate Change

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DISCLAIMER

This research paper is written by Bryan Bonseok Koo, an intern currently working towards completing his Master's degree in political science at the Graduate Institute of Peace studies of Kyung-Hee University in Republic of Korea. The research was conducted in the context of an internship with the NGO branch of the Department of Economic and Social Affairs. The opinions and ideas expressed in the current research do not reflect that of the United Nations or any of its subsidiary bodies. They are the sole opinion of Bryan Bonseok Koo. Any questions or suggestions should therefore be discussed or addressed to the author.

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Introduction:

The first world climate change conference was held on 12-23 February, 1979 in Geneva. The conference mostly focused on how climate change might affect human beings. During this conference, the participants devised one of the crucial achievements in the history of international negotiation on climate change, "the Declaration of the World Climate Conference". For the first time this historical draft identified carbon dioxide as a cause for global warming. Carbon dioxide has been mainly generated from the fossil fuel combustion since the beginning of industrialization. For over thirty years, the international community has been focusing on the way of tackling down climate change crisis. The Millennium Development Goals (MDGs) also articulated that climate change is one of the toughest obstacles towards achieving internationally agreed development goals, including the Millennium Development Goals.¹In response to the climate change crisis issues, NGOs had been emphasizing on the two types of activities: one is to reduce carbon emission and the other is to mitigate the impact of climate change in our ordinary life.

This paper aims to provide a general view on how civil society has been contributing their efforts to the collective endeavor of international community to reduce the risk of global warming crisis. In particular, with the increasing economic globalization and transnational economic power, it makes much harder for a government alone to control or regulate the environmentally harmful economic activities.²Therefore, it is worthy of collecting and analyzing successful projects specifically implemented by civil society to either mitigate the impacts of climate change or stop climate change altogether. Since a large number of NGOs are working for cutting carbon emission and mitigating the impact of climate change, it is crucial to narrow down the scope of NGOs which will be investigated. The projects in this paper are selected from ones implemented by NGOs with Economic and Social Council (ECOSOC) consultative status. ECOSOC consultative status can be classified into three different kinds of status including General, Special and Roster depends on the scope of issues and geographical reach that NGO is working for. In the process of collecting information and data for this research, the researcher

¹Keeping the promise: a forward-looking review to promote an agreed action agenda to achieve the Millennium Development Goals by 2015, Followed-up to the outcome of the Millennium Summit, 12 February 2010

²Ken Conca, "Greening the United Nations: Environmental Organizations and the UN system", <u>Third World</u> <u>Quarterly</u>, Vol.16, No.3, Nongovernmental Organizations, the United Nations and Global Governance, Sep. 1995: 442

mainly refers to the website of relevant NGOs and organizations. In this paper, the researcher would like to begin by devising models that explains success factors of projects run by NGOs in various fields including water, biodiversity, transportation, deforestation and energy. The main conclusion of this paper is that every successful project run by NGO shares at least two out of four elements. These are: (1) Community participation, (2) Innovative technology, (3) Education, public awareness and training, and (4) Partnership.

<Successful Project Models on Climate Change>

While researching through a significant number of successful projects by NGOs, I have realized that some factors can be commonly found among them. The model which is presented in this paper may be partial and incomplete, however the research ensured that factors presented here are conducive to NGOs to design and implement projects.



Figure 1 – The models of successful projects

As you can see in Figure 1, projects are conducted through three stages including planning, implementing and monitoring. In an attempt to lead successful projects, many NGOs encourage local communities and various stakeholders to participate in every stage of the project. **Community participation** is the first factor to lead projects to be effective as well as efficient.

In addition to that, **technology innovation** is one of the most important factors to carry out projects as well. NGOs also put significant efforts in order to increase **public awareness** of climate change and develop their capacity to deal with it and its impact in a timely manner. Many NGOs actively seek to establish partnerships with various organizations including governments, intergovernmental organizations and private companies to realize the synergy effect. The abovementioned elements can be commonly found in projects that succeeded to achieve their purpose.

1) Community participation:

One of the factors that make projects successful is an active involvement of local communities. The participation of local community in the planning, implementing and monitoring stage can be essential for the effectiveness as well as for the efficiency of the project. Even though technology regarding climate change and environment has advanced dramatically over the last century, firsthand observation and traditional knowledge of local residents on environmental condition is still useful for scientists and project managers to refer to. With knowledge from local communities, projects can be designed and implemented to achieve its purpose more effectively and accurately. In addition to that, participation of local communities makes projects also to be efficient in terms of cost and time. For example, even though a project has been carried out according to their plan, it needs to be monitored and evaluated regularly. If local community is well aware of the significance of the project and actively involved in the monitoring work following by implementation, then their activity will ameliorate the outcome of project afterwards in a cost-efficient manner.

2) Technology innovation:

Technology innovation often leads projects to solve the problems of climate change effectively, even though types and sources of technology required for projects vary according to the characteristics of projects. In many cases, NGOs try to stop deforestation and carbon emission by introducing new technology to change life pattern and style. Technologies in projects are usually introduced either by importing the latest high-end technology or by listening to the wisdom of local communities.

3) Education, public awareness and Training:

NGOs also put emphasis on the significance of education for local communities to understand why climate change has been exacerbated and what consequences it will have to them. Their activity on education also plays a crucial role in helping local communities to respond immediately to disaster derived from climate change. NGOs organize workshops, environmentawareness camps and schools in the community to achieve their education goals.

4) Partnership:

While researching through various kinds of projects implemented by NGOs, the research indicates that many projects were conducted with the support of various agents including governments, intergovernmental organizations and private companies. For instance, many private companies have provided a grant for NGOs to execute their project. Intergovernmental organizations also have been promoting NGOs to grapple with climate change to achieve MDGs and other internationally agreed goals. Partnerships can consolidate the capacity of NGOs by providing a variety of resources including, among others, funding and technology.

Projects

(1) Community Participation

Collective management of natural resources

Innumerable projects have clearly proved that successful projects have been executed with the participation of local community. Since climate change affects significantly common natural resources such as water, civil society has paid more attention on the issue of water resources management, reforestation, and biodiversity conservation.



Figure 1Villagers of Govater in Empowerment Workshops, Sistan&Baluchestan Province

Garrett Hardin introduced the concept of "the tragedy of the commons" in his research in order to argue that common resources should be possessed, either by government or by private sector, to prevent common resources from excessive appropriation by common resource users. However, in the case of the tragedy of the commons, scholars have identified various counter-examples. According to the research by Elinor Ostrom, it is argued that "collective management of natural resources by a community of organized users achieves more sustainable outcomes than either state management or privatization."³In fact, a lot of projects have been implemented based on the belief that collective management of local community will prevent the excessive appropriation or deterioration of common resources. In the project of "Regaining control of local water resources" which was devised and implemented by Catholic Relief Services - United States Catholic **Conference**, Inc. (Special 1978), we can easily find the efforts of NGOs in organizing the water governing groups to manage water resources voluntarily. World Wide Fund for Nature **International (General 1996)** also initiated the project to build the working relationship among various stakeholders who are sharing the river and water resources in 1999. The Energy and Resources Institute (TERI) (Roster 1996) designed and implemented a community-based Decentralized System of Safe Drinking Water Supply in India. Collective management of natural resources is not only applicable to the issue of water resources, but also to the project for biodiversity conservation in Grenada and the project for mangrove protection in Iran. Caribbean Conservation Association (Roster 1979) initiated the collective management of sea and seashore among various stakeholders including local government and appropriators in an attempt to preserve lobsters in the region. Green Front of Iran (Special 2004) started the project for mangrove conservation which emphasizes the role of active local community involvement. They began with an education program to explain them why mangrove is important for ecosystem and how they can protect its value in the region.

Local knowledge and information

NGOs also place value on traditional knowledge and information which have been transmitted from generation to generation in local communities. Even though the technology has been advancing dramatically over the last century, NGOs often have difficulties to introduce such a technological progress to local communities, as they are not familiar with those new facilities

³Amy R. Poteete and Elinor Ostrom, Fifteen Years of Empirical Research on Collective Action in Natural Resource Management: Struggling to Build Large-N Database Based on Qualitative Research, World Development Vol. 36, No.1, p.178

and technologies. In their project in Burkina Faso, **Oxfam International (General 2002)** promoted the spread and further advancement of an indigenous technology called "zaï technology" throughout the continent as originally initiated and improved by local farmers in the region. This indigenous technology aims at rehabilitating the degraded land by bettering the conventional planting pits known as zaï. ⁴ **Inuit Circumpolar Council (Special 1983)** has initiated the project named "Sila Inuk Project" which intends to observe the impact of climate change in Greenland. Researchers from NGOs collected data through interviewing with Greenland hunters and local residents who are inevitably depending closely to the environment for their living. The information obtained from the interview is very critical for assessing the impact of climate change in the region.



Figure 2 Forest areas (sq. km)

(2) Technology Innovation

World Bank Statistical data⁵ indicates that the worldwide consumption of fossil fuel has been decreasing at a Compound Annual Growth Rate (CAGR) of 0.31 percent since 1960 while Least Developed Countries (LDC) have increased their reliance on fossil fuel at a CAGR of 1.71 percent since 1971. In contrast to that, European Countries shows a CAGR of negative 0.54% during the same period. Since the consumption of fossil fuel

has severely caused carbon emission, many NGOs have committed to replace it with sustainable and renewable energy sources including solar energy in the region.

⁴Indigenous Innovation in farmer-to-farmer Extension in Burkina Faso, IK Notes Report, No. 77, February 2005 (http://www.worldbank.org/afr/ik/iknt77.htm)

⁵ World Bank official website : http://data.worldbank.org/

World Bank also indicates that the total area of forest worldwide has decreased at a CAGR of 0.2 percent, while European Union has expanded the total area of forest at a CAGR of 0.48%. Each of the LDCs and Sub-Saharan countries indicates that total area of forest in the region has been reduced over last twenty years at a CAGR of 0.67 percent and 0.66percent.



Since many countries in the process of Figure 3 Fossil fuel energy consumption (% of total) industrialization are still heavily dependent upon the use of firewood for their everyday activity (i.e. cooking), a large number of projects here emphasizes the role and importance of technology innovation to replace it with sustainable and renewable ones. For instance, International Federation of Agricultural Producers (General 1947) introduced the project of recycling agricultural waste to manufacture charcoal briquettes in Uganda. By providing a way to produce an affordable and feasible source of energy, they can stop deforestation and degradation derived from cutting trees in the region.

Introducing solar energy facilities into community

Solar Cookers International (Special 1996) provided solar energy cooking facilities to local



Figure 4 Cooking with solar cooking material

communities in an attempt to cutting carbon emission and preventing deforestation in the area. Environmental Camps for Conservation Awareness (Special 2010) supplied photovoltaic charging stations to local residents to eradicate poverty as well as to reduce their reliance on conventional fuel. International Solar Energy Society (Roster 1973) also aims to promote the wider use of renewable energy technologies in the urban environment of Africa. All these projects aim at cutting carbon emission and preventing deforestation by providing solar energy

related infrastructure. As feasible and innovative technology can be a solution to energy-related problems, adopting cutting-edge and viable technology can be an answer to the question of water resources management as well. **International Water Association (IWA) (Roster 1972)** introduced rainwater harvesting system in the Republic of Korea to mitigate problems derived from climate change. This project has gained worldwide reputation as a successful model for futuristic water management system that supplements the current centralized water management system.

Adopting new systems

Many NGOs have strived to solve problems that local communities are confronting by setting up 'visible and physical' infrastructures. Along with their efforts to establish facilities in the area, NGOs also endeavor to introduce new system from their experience into local communities. The **Institute for Transportation and Development Policy (ITDP) (Roster 1998)** has worked on the issue of transportation system in Guangzhou, China for five years. They recommended local government to adopt Bus-Rapid-Transit (BRT) system into Guangzhou which eventually succeeded in making people access to public transportation system more convenient.



Figure 5 The Guangzhou bus rapid transit (BRT) system

Technological Innovation from local knowledge

The project by **Catholic Relief Services - United States Catholic Conference, Inc. (Special 1978)** aimed at rehabilitating the degraded land in Uganda by promoting and spreading the idea of "second cropping". This very simple idea, however, turned out to be very effective to achieve its goal. This international organization mainly helped promoting and spreading the local technology and knowledge that is useful to restore the devastated land. In the project of

indigenous innovation in farmer-to-farmer extension in Burkina Faso, **Oxfam International** (**General 2002**) also played a crucial role in discovering the usefulness of local technology and promoting their knowledge throughout the African continent.

(3) Education, Public Awareness and Training

The role and significance of education, public awareness and training has played an important role in tackling the challenge of climate change. Agenda 21, an action plan of the United Nations Conference on Environment and Development, has clearly stated that "education, raising public awareness and training are linked to virtually all areas in Agenda 21."

Eco tourism



Figure 6 Ecotourism in Mongolia

Green Asia Network (Special 2010) has devised and implemented a project named "Yellow to Green" in an attempt to help people to understand how climate change affects their everyday life with regards to the desertification in Mongolia. The organization annually recruits people who want to experience desert areas in Mongolia. Participants of the program receive

an educational program from the organization

about why desertification has been exacerbated and how this phenomenon affects the life of people in North-Eastern Asia. After receiving an educational program, they will do various activities including tree planting, tours, and cultural exchanges with local people in the region. The organization expects people to understand more about specific and substantial impact and the process of desertification in Mongolia through hands-on learning.

Community Radio

Green Asia Network has achieved their goal by designing an ecotourism event; however the approaches taken by NGOs can be varied based on their goal and scope of projects. For example, **World Association of Community Radio Broadcasters / Association Mondiale des RadiodiffuseursCommunautaires (Special 1998)** has provided their technical assistance to local communities to establish their own community radio station. Years of experiences indicate

that community radio station can be a viable and adequate way of conveying information on climate change and its impacts in local community.

Environmental Education

Organization for Industrial, Spiritual and Cultural Advancement - International (**OISCA**) (**General 1995**) executed a lot of environment conservation seminars, lectures for students outside classrooms, and environmental awareness camps to promote the public awareness toward environment. They have also run a typical hands-on training

and involved many farmers in various kinds of programs including general agriculture,



Figure 7 OISCA Fiji Agro-Forestry Development Project

poultry farming, pig raising, dairy farming, floriculture, horticulture, agricultural extension, home economics, sericulture, etc., as part of their "Environmental education program for conserving coasts of Fiji" project. ⁶The organization invited all participants to their center and made them learn through real and actual field experiences.

Education for planting trees

The focus and highlight of environmental education is moved from ideology and activism toward hands-on learning by experience. **China Green Foundation (Special 2003)** has made a campaign to announce the importance of forest and it planned to plant 1,200 acres of green forests in the Banan District of Chongqing in west China. Local residents will learn the importance of forest in the region by the actual experience of planting trees. **Evergreen Club of Ghana (Roster 2000)** conducted the campaign and education program to increase the public awareness in Ghana to replant trees as well as to protect them. While members of local community plant trees and receive an educational program from the organization, they can surely grasp ideas of why tree planting and reforestation is crucial for their ordinary life and how they can protect those important common assets.

⁶Organization for Industrial, Spiritual and Cultural Advancement - International (OISCA) on the internet.(http://www.oisca.org/e/project/fiji/index.htm)

(4) Partnership

Even though there are still controversial issues with regards to whether NGOgovernment-private company partnerships are effective and efficient to stop climate change and to mitigate its impact, many successful projects lead by NGOs have elucidated that they can achieve their goals through the partnership with various agents including governments and private companies. In order to achieve it, it is important that all involved agencies should specify their role and responsibility in the project.

Partnership with private companies



Figure 8 Planting trees near the Yangtze River

China Green Foundation (Special 2003) initiated the project of "Planting trees near the Yangtze River" with the sponsorship of multi-national automobile manufacturer, BMW. In addition to that, since the Chinese government got involved in and sponsored the project, we have a success case that proves the

total feasibility of Public Private Partnership (PPP)

projects. Organization for Industrial, Spiritual and Cultural Advancement - International (OISCA) (General 1995) is also able to start their project with a grant from TOYOTA, a Japanese automobile manufacturer.

Partnership with intergovernmental organizations

A large number of successful projects have been implemented not only with the support of private companies but also with the support of intergovernmental organizations. The GEF Small Grant Program has provided significant amount of money to NGOs to carry out their plan. Green Front of Iran (Special 2004) applied to this Small Grant Program and they were able to achieve their goal of preserving Mangrove in Iran. The Society for Conservation and Protection of Environment (SCOPE) (Roster 1996) also succeeded to receive this grant and they were able to implement their project.

Partnership with governments

Involvement in policymaking process can be one of the practical ways to obtain NGOs goals. NGOs usually participate in it by building partnerships with governments. the partnership In with government, NGO can exert their clout in developing policies by providing their



Figure 9 rainwater harvesting (RWH) project in the Korean capital, Seoul

knowledge and experiences to decision makers. Governments can, likewise, achieve their projects' objectives effectively and efficiently by applying the experiences that NGOs have obtained. In the project to replace conventional fuels like firewood with biogas in Nepal, the government actively sought to cooperate with NGO and has adopted projects which have already been implemented by NGOs. Biogas Sector Partnership Nepal (Special 2010) carries out their projects successfully with the proactive support from the Nepal government. For designing sustainable transportation system in Guangzhou, the Institute for Transportation and Development Policy (ITDP) (Roster 1998) closely collaborated with Guangzhou municipal government to transform the public transportation system in Guangzhou, China. Seoul City government has been enthusiastic to provide support to the project run by the International Water Association (IWA) (Roster 1972) geared towards the decentralization of the water management system. The organization has worked to design and adopt a rainwater harvesting system in Seoul city of South Korea. Seoul metropolitan government has actively assisted the organization to promote their idea so that can be adopted by other local governments. In addition to their help in advertising their projects throughout the country, they created a policy that strongly recommends every building to be constructed in the future to establish a rainwater harvesting facility on their rooftop, as a way of preventing drought and flood. Due to the support of the Seoul city government, the organization was able to succeed in the 'institutionalization' of their idea in the city. At the same time, the local government can improve their provision of

public service in a cost-efficient way. Both NGOs and governments can benefit from partnerships.

The Partnership between NGOs

Scope and size varies amongst NGOs. Some organizations may have more interests in working at the international level; others may have more interests to focus at the national or even local community level. Each type of organization has its own strengths and weaknesses in devising and implementing projects. In those cases, they have tried to complement their weaknesses by building partnership between NGOs that operate at different levels. **Inuit Circumpolar Council** (**Special 1983**) built a strong partnership with the association of hunters in Greenland to obtain specific and first-hand observations of local hunters toward climate change and its impact in the



local organization, they can deliver their observations and opinions on this issue by working with Inuit Circumpolar Council in the region. **Evergreen Club of Ghana** (**Roster 2000**) is able to achieve their goal of "local tree-planting and reforestation activities" with

region. From their perspective as a

Figure 10 Local tree-planting and reforestation activities

technical advice and support from

the International Tropical Timber Organization (ITTO). ITTO supports community-based forestry management approaches due their many years of experience and knowledge on this particular topic.⁷

<Conclusion>

The objective of this study is to provide a general view on how NGOs have worked to deal with climate change and what elements make the above-mentioned projects successful. In order to reach to the goal of this study, various successful projects from the NGOs in

⁷ITTO on the website: http://www.itto.int/feature03/

consultative status with ECOSOC working in a variety of fields including energy, water resources management, reforestation, agriculture, desertification, transportation and biodiversity were explored. As a result, four elements inherent in the successful project were mentioned in the beginning. These were: (1) Community Participation (2) Technology innovation (3) Education, public awareness and training, and (4) Partnership. A large number of cases were analyzed to enhance the understanding of readers on the conception and application of these four elements in the model. Surely, the practitioners on the issue of climate change can refer to the four elements in the model as a case for leading their projects to success.

In order to help the readers to better understand the conception and principle of elements of the model, this research has explained each element one by one. However, in reality, four elements mentioned above are binding and mutually affecting with each other. For instance, if one NGO wish to replace the conventional fuel with biogas energy in one local community, and then they apparently need to involve the local community into the project. Since local residents are the one who would use the facilities installed by NGO afterwards, the technological transfer would essentially require participation from the local community. In other words, even if NGO builds a perfect infrastructure in the region, the infrastructure can hardly ameliorate the living condition of local community without sustainable management and modification by local community. Additionally, the success of local community participation in the project will be determined by the fact whether local community is well educated or trained to use the facility itself. In this case, the education activity toward the local community will enhance the level of their knowledge, in which it will improve the quality and quantity of participation of local community. The sufficient budget and human resource are also essential to lead projects successful. NGOs often find it difficult in financial funding, technological limitation and human resources shortage and this can be solved by building a partnership with other agents.

In an attempt to solve the challenge imposed by climate change, it is more important to collect and analyze the successful projects and to establish the archive of those projects. This paper intends to provide a series of collection and analysis of the projects to help project managers to lead projects successfully and to tackle down global warming crisis. Even though it is not easy to overcome one of the biggest challenges of our age, our goal will be achieved gradually, but firmly.

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#	NGO	Summary	Т	PI	SI	SF1	SF2	R	PA
14	Organization for Industrial, Spiritual and Cultural Advancement - International (OISCA) (General 1995) "Environmental education, tree planting and agriculture training for sustainable development in northern Thailand"	The Agro-Forestry Center has 8 hectares of land, mostly planted with fruit trees. The Center mainly works to promote the Children's Forest Program, which is currently being transformed to Community Forest Program. The Center actively executes other activities such as environment conservation seminars, lectures for students outside classrooms, and environmental awareness camps. TOYOYA which is one of the biggest automobile manufacturers in the world decided to provide a funding for this project in 2010.	2	2		1	4	6	8
11	Green Asia Network (Special 2010) "Eco tourism toward desert area"	The main purpose of their eco tourism program is to make people experience the hardness of the desert area and understand why it is important for them to protect the environment.	1	2	7	1		6	6
18	World Association of Community Radio Broadcasters / Association Mondiale des RadiodiffuseursCommunautaires (Special 1998) "Community Radio Support Center's Grant Committee in Nepal"	To democratize radio broadcasting through local and international action; To promote the community radio movement; To represent and defend the interests of its members at the international level; To offer various services to its members.	3	5		1		1	7
2	International Federation of Agricultural Producers (General 1947) (France) "Recycling agricultural waste to manufacture charcoal briquettes"	When NGO devised the project, the local community was suffering from deforestation, soil degradation, and the increased price of fossil fuel. The major cause of this is a lack of affordable and reliable alternative sources of energy, and where alternatives do exist, such as kerosene and gas, the majority of people are too poor to afford them. So, they introduced new technology to recycle agricultural waste to produce the energy source and educated people to make it by themselves.	1	1	2	2	3	1	4
3	Catholic Relief Services - United States Catholic Conference, Inc. (Special 1978) (US) "Regaining control of local water resources"	CRS introduced the idea of "Second cropping" in the region. And they actively organize the water governance group to control and manage the watershed and river. In addition to that, they offered the rain water collecting facilities to the local community to solve the problem of water shortage. As a result of this project, there has been a significant increase of available water allows farmers to harvest crops twice a year, first relying on seasonal rains and a second using irrigation.	2	4		2	3	1	7
1	Biogas Sector Partnership Nepal (Special 2010) (Nepal) "Nepal Biogas Support Project: A case of Synergy between Rural Development, Environment and Energy Practice"	In an attempt to reduce the use of firewood in cooking, NGO provides a bio gas facilities and education session for local community to use it.	3	1	2	2	4	7	7
21	International Water Association (IWA) (Roster 1972) "The Star City Rainwater Harvesting (RWH) project in Korea"	NGOs incorporated with Seoul Metropolitan Government and other cities to install Rainwater Harvesting facilities in building in an attempt to reduce the risk of flood and drought. Due to the installation of these facilities, city government can effectively and efficiently deal with the crisis derived from climate change.	2	4		2	4	1	6
6	Solar Cookers International (Special 1996) "Aisha Solar Cooking Project"	With the provision of solar cooking facility, NGO aims at reduce the reliance of community on firewood for cooking fuel.	1	1	2	2		1	4
8	International Solar Energy Society (Roster 1973) "Promoting Renewable Energy in Africa (PREA)"	PREA aims to promote the wider use of renewable energy technologies in the urban environment of Africa, in support of poverty reduction, improved living conditions and sustainable development. The focus will be on environmental architecture, also for poor communities, with consideration of effective policy, regulation and standard options that will support this.	1	1	2	2		1	4

the list of the project by NGO

#	NGO	Summary	Т	PI	SI	SF1	SF2	R	PA
17	Environmental Camps for Conservation Awareness (Special 2010) "Innovative photovoltaic charging stations against poverty in El Salvador (ENFOCA)"	The project provides small and portable photovoltaic charging stations to the local community where cannot access to electricity. Due to the provision of small size charging station, local community does not need to rely on firewood for cooking. In addition to that, they don't need to buy a disposable battery for their electronic production.	1	1	2	2		7	5
7	Oxfam International (General 2002) "Indigenous innovation in farmer-to-farmer extension in Burkina Faso"	NGO tried to listen to the wisdom from the local community and to promote their indigenous knowledge to recover the degraded soil. They promote the idea, "Zai" technology, via three ways including "Market Day" Approach, "Teacher-Student" Approach, and "Zai Field School" Approach.	2	6	3	3	2	1	4
15	The Energy and Resources Institute (TERI) (Roster 1996) "Implementing Community Based Decentralized System of Safe Drinking Water Supply in India"	The objective is to design, implement, and demonstrate an economically viable model of community-based decentralized drinking water supply system that will ensure safe water supply. In an attempt to provide safe drinking water to the community, TERI designs and implements the community-led institutional system. Besides, every process will be implemented based on environment-friendly technology.	2	4		3	2	7	7
5	Inuit Circumpolar Council (Special 1983)	To collect the climate change observations made by local residents of	1	5		3	4	1	
13	Green Front of Iran (Special 2004) "Active Community Empowerment for Mangrove Conservation in Govater"	With support from GEF Small Grants Programme, NGO tries to empower the local community and enhance their understanding toward the cause of the climate change and its impact on their ordinary life.	3	5		3	4	9	9
22	Caribbean Conservation Association (Roster 1979)	At the rural town of Sauteurs government recently started a co- management project to encourage use of more responsible fishing gear for lobster harvest, and the fishing co-operative in the area is presently being revived. Stakeholder groups include government Fisheries and Cooperatives Divisions, the Agency for Rural Transformation, St. Patrick's Fishermen's Co-op.	2	9		3	4	5	5
4	World Wide Fund for Nature International (General 1996) "Preserving Biodiversity through Water Management"	In 1999, WWF initiated the project among various stakeholders mentioned above. During two years from 1999 to 2000, they worked on building the working relationship among them and defining the scope of the work. During 2002 to 2004, an integrated water resources management plan had been devised with help from Dutch consultants using WWF funding. In 2004, an agreement was reached among all partners in the project associated with the plan of water resources management.	2	4		3		1	4
12	Green Cross International (General 1997) "The Smart Water for Green Schools project"	The project has intended to provide a reliable and long-lasting system of rainwater collection in an attempt to better the water security of local community. In the first phase of the project, GCI selected 10 schools for pilot project from 2010 to 2011. After assessment of the project whether it is success or failure, if it is worthy of doing, then they will expand the project further in this area. According to the news, Giorgio Armani will support the project implemented by GCI from February, 2011.	2	4		3		1	4
9	China Green Foundation (Special 2003, WSSD) "Planting trees near the Yangtze River"	With the support from BMW which is one of the biggest car manufacturers in the world, China Green Foundation plans to plant 1,200 acres of green forests Banan District in Chongqing in west China. The company aims at increasing their reputation in China and NGO will receive financial funding from the company.	3	2		4	1	6	6
10	Evergreen Club of Ghana (Roster 2000) "local tree-planting and reforestation activities"	With the support from ITTO, Evergreen Club of Ghana conducted the campaign and education program to enhance the public awareness to replant trees as well as to protect trees. In this project, NGO actively involved local community into the project so the project can be managed and monitored sustainably.	1	2		4	1	4	4

#	NGO	Summary	Т	PI	SI	SF1	SF2	R	PA
16	Organization for Industrial, Spiritual and Cultural Advancement - International (OISCA) "Environmental education program for conserving coasts of Fiji"	OISCA training is a typical hands-on training and is conducted at farms or in factories in wide-ranging categories, including general agriculture, poultry farming, pig raising, dairy farming, floriculture, horticulture, agricultural extension, home economics, sericulture, etc., and basic manufacturing industries. Trainees engage in actual productive work and acquire practical skills under the guidance of instructors and receive instruction on the production of quality items	1	5		4	1	6	8
19	Institute for Transportation and Development Policy (ITDP) (Roster 1998) "Sustainable Transportation system in Guangzhou"	Since the beginning of industrialization in Guangzhou as well as China, transportation is one of the sources which emit carbon dioxide mostly. Not only for the environment of the city, but also for the health and living condition of people, it is crucial to reform and redesign the transportation which is sustainable and convenient. ITDP has worked on this issue for five years and adopted the BRT system (Bus-Rapid- Transit) into Guangzhou transportation system. It is the first BRT in China to include bicycle parking in the stations and the first in the world to include direct connecting tunnels between metro and BRT stations.	1	8		4	2	1	6
20	Society for Conservation and Protection of Environment (SCOPE) (Roster 1996) "Combating Desertification by Participatory action in Tharparkar"	Tharparkar is a fragile arid region which is threatened to desertification due to the frequent drought and the deforestation. In an attempt to prevent this area from the desertification, the project aims at reducing pressure on land and forest resources which is caused by illegal tree chopping, and destruction of natural plantations of guglan (Camiphora mukal) for gum resin extraction The project addresses GEF operational programme 15 of sustainable land management. The project will restore the natural balance of the local ecology by removing or minimizing threats created by deforestation and bush destruction and will serve the global environmental causes of reducing global warming, protection of biodiversity and combating desertification. (http://sgp.undp.org/web/projects/14893/combating_desertification_ by_participatory_action_in_tharparkar.html)	2	2	7	4	3	7	7

	T = Type	Regional Grouping						
	PI = Primary Issue	Developed countries						
	SI = Secondary Issue	Commonwealth of independent states						
	SF1 = Successful Factor 1	Northern Africa	3					
	SF2 = Successful Factor 2	Sub-Sharan Africa	4					
	R = Region	Latin America and the Carribbean	5					
	PA = Project Area	Eastern Asia	6					
		Southern Asia	7					
	Туре	South-Eastern Asia	8					
1	Carbon Emission	Western Asia	9					
2	Adaptation	Oceania	10					
Successful Factor		Issue						
1	Public Awareness	Energy	1					
2	Technological Innovation	Deforestatioin	2					
3	the participation of local community	Agriculture	3					
4	partnership	Water	4					
		General	5					
		Degradation (Soil)	6					
		Desertification	7					
		Transportation	8					
		Bio-diversity	9					