Stakeholder Analysis of Trans-Border Regional Cooperation on Environmental Protection in Northeast Asia

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Introduction

Environmental sustainability has emerged as an imperative issue in Northeast Asia demanding urgent attention at the national and international level. Rapid industrialisation in the region has resulted in large-scale pollution, resource depletion, and loss of bio-diversity. Faced with continuous growth in resource consumption by three of the world's largest and most densely populated countries, the environmental outlook of the Northeast Asia region is increasingly worrisome inducing potential negative impacts on the region but also threatening sustainable development of the whole world. Taking the greenhouse gases (GHGs) for example, emission of GHGs in the region accounts for 10% of world's total and is expected to increase dramatically in the near future (Morita & Hamada, 2000). Within 25 years China alone is expected to overtake the United States as the world's largest emitter of GHGs, a major cause of global warming (Wang & Chen, 1999).

Since the last decade, the countries of the Northeast Asia region have undertaken steps towards regional cooperation in order to jointly tackle the problem of environmental degradation. China, Japan and South Korea have been most active in establishing intergovernmental cooperation on environmental issues. This move has been underpinned by the specific socio-economic dynamics of the region. Northeast Asia has seen a rapid economic integration, especially within the subregion consisting of China, Japan and South Korea. Discussion of environmental issues appears less sensitive and relatively "neutral" compared to ongoing conflicts stemming from previously unresolved wars and occupations. Furthermore, environmental cooperation also offers vast opportunities for technical and trade cooperation. Consequently, environmental cooperation has also gained momentum and moved up on the foreign policy agenda of the concerned and participating countries.

Most of the Northeast Asia regional collaborative actions were so far aimed at tackling environmental disputes, such as acid rain, marine degradation, migratory birds and fish, etc. There are however a few regional arrangements which focus less on resolving environmental disputes but more on creating a common vision among the collaborating nations regarding environmental protection and sustainable development. Supported by many international organizations, this later trend grew rapidly in the region and led to the formation of different regional dialogue fora, such as: Northeast Asian Conference on Environmental Cooperation (NEAC), North-East Asian Sub-regional Program on Environmental Cooperation (SOM), and

Tripartite Environmental Ministers Meeting (TEMM).

These coordination mechanisms in Northeast Asia have created a greater awareness of the interdependency of environmental issues among countries sharing common eco-systems and highlighted the need to speed up the flow of information for more effective environmental management. However, cross-boundary dialogue is a relatively new phenomenon for China, Japan and South Korea. At the lower end of the leaning curve, these initiatives have also exposed the structural limitation in achieving desired results through joint actions. Although the participating countries in general agreed on the goal and need for cooperation, they are much less clear about what concrete actions should be taken in order to benefit from such international cooperation. In addition, consensus for cooperation has not smoothed away conflicting perceptions about which of the environmental issues should be addressed jointly, which significant actors should be involved and how such joint project implementation should be organised.

This is in contrast to Europe where regional cooperation has had more than 30 year's of history and with evident success. Regional cooperation, especially in Northeast Asia, is relatively new. Until very recently, Northeast Asia has remained one of the regions where no official cooperation mechanism has been successfully incorporated (Yoon, 2001) be this at economic, political or environmental domains. Until recently environmental cooperation in Northeast is characterised by the fact that it is mostly promoted through bilateral, rather than multilateral, channels. Hence Northeast Asia represents an excellent case for researching the potential for cooperation and conflict over environmental issues among countries with different political and economic interests and the use of transborder cooperation in environmental management.

The purpose of this paper is to examine the use of multilateral transborder cooperation between China, Japan and South Korea in managing environmental sustainability. A concrete case study will be examined in order to shed light on this emerging trend and to explore alternative implementation strategies at the project level.

Theoretic Framework

Trans-border regional cooperation could be seen as a specific form of strategic alliance in achieving interdependent and long-term strategic objectives. Strategic alliance, according to Jauch. & Glueck, (1988), is defined as "*an organisational relationship that links two or more independent business entities in a common endeavour*". Borrowing from this perspective, one can state that regional cooperation could be considered as a strategic alliance that links two or more independent public administrative entities in a common endeavour for achieving long-term objectives.

Regional alliance could be an effective approach of creating a transborder structure which could

facilitate in solving the shared problems of environmental disruption and in finding ways to enhance environmental sustainability. This approach could be of great benefit for countries which share common environmental resources and/or are residing in a common or neighbouring eco-system(s). Environmental pollution recognises no border and therefore segmented solutions defined by national and/or political borders would yield limited results and impact. Countering this limitation of a purely national focus, trans-border alliance offers the possibility of pooling resources, competencies and existing infrastructures through an inter-organisational (governmental) arrangement. In light of the above, such alliance could also provide greater legitimacy as well as political space in dealing with complex socio-economic and institutional issues regarding environmental sustainability in a longer term.

Concretely, a strategic cooperation on environmental management offers potential net economic benefits. These benefits may result from one or more of the following sources:

- Economies of scale in management, including costs of information collection, storage, and dissemination; scientific and administrative training; and establishing and operating monitoring and enforcement mechanism;
- Economies of agglomeration (the creation of one or more centres for regional environmental management) including knowledge spillovers, reduced transport costs, and cheaper inputs;
- Reduced transactional costs of trade as a result of a common environmental regulatory framework;
- Economies of scale in capacity building, including technological, managerial, social, and physical infrastructure;
- Resource pooling, which allows projects in environmental management or sustainable development to be undertaken which would otherwise not occur;
- Elimination of standards-lowering competition ("race to the bottom");
- Enhanced bargaining power in international environment, development and trade fora, including donor agencies (Hayes and Zarsky, 1994).

Success Factors for Strategic Alliance and Trans-border Cooperation

Reviewing the literature, the following factors were identified as playing a most significant role for the success of trans-border cooperation:

- 1. Perceived strong interdependency by all partner countries
- 2. Clearly articulated policy objectives of the multi-country cooperation
- 3. Clearly designated institutional capabilities and capacities to carry out the actions required for such cooperation
- 4. Active participation of the key stakeholders representing different interest groups and administrative levels within each country
- 5. Strong ownership of the inter-cooperative relationship and locality specific champions for such

cooperation.

This case study will be examined from these five aspects of successful strategic alliance with a strong emphasis to be placed on the participation of stakeholders. Stakeholder participation is considered to be most challenging in high power distance countries (Hofstede, 1981, 2001) and requires more institutional learning in China, South Korea and Japan alike. Successful management of stakeholder participation in the context of environment sustainability, the authors expect, would help to enhance the robustness of the tripartite cooperation and strengthen the real impact of the alliance. *Key Stakeholders and Their Role in the Success of Strategic Alliance*

A stakeholder is any group or individual who can affect or is affected by the achievement of an organisation's purpose (Jauch and Glueck, 1988). The stakeholders with whom the organisation has an exchange relationship will present demands or claims (expectations) and therefore posting certain constraints on the objectives of the organisation. The organisation, in turn, depends on the stakeholders for the full realisation of its mission. Consequently, for the success of any project or strategy, it is critical to take the stakeholders' interest into consideration and to involve them in the process of implementation.

Stakeholder groups can be divided into two categories, the primary and secondary stakeholders. Both groups could influence the outcome of any strategic alliance and consequent actions.

Primary stakeholders are the constituent groups who would be positively and negatively impacted by the outcome of any policy decisions. In the case of trans-border cooperation regarding environmental sustainability, these primary stakeholder groups are citizen groups, communities and businesses that reside in the region and use its shared resources.

Secondary stakeholders are the groups who can significantly influence the alliance and are most instrumental if the strategic objectives are to be met. They could be professional groups, regulators, economic planners, chamber of commerce, environmental NGOs and other interested parties.

How to mediate the different and divergent interests of stakeholders will be one of the key factor determining the success of trans-border cooperation. Stakeholder participation has been seen as an effective way to guarantee the dynamism and long-term sustainability of any major project. Stakeholder participation can take different forms and represent different level of governance control. It can be developed through the invitation to be present; or through the management or implementation of a project; or in the governance of a programme or project by providing consultation on objectives, setting success criteria for evaluation, etc.

Meaningful stakeholder involvement in the cultural-political contexts of Japan, China and South Korea

might be more difficult to achieve than elsewhere for political and cultural reasons. Insufficient stakeholder participation offers a plausible explanation why established¹, environmental cooperation in Northeast Asia region². is seen as insufficient, redundant, and lacking of institutions and cooperation mechanism (Takahashi, 2000). The authors hence postulate that should primary stakeholders be involved in the planning and execution of transborder cooperation project greater effectiveness would be achieved. A selected case example, Tripartite Environmental Education Network, illustrates this point in greater detail.

Case Example - Tripartite Environmental Education Network (TEEN)

The case example selected here is a transborder cooperation project between the environmental agencies of China, South Korea, and Japan, called Tripartite Environmental Education Network (TEEN). It is a strategic response whose aims are a) to build awareness of environmental issues; b) to create an "environmental community" in the sub-region and c) to development human and organisational networks to support sustainable environmental management.

The objective of the TEEN Project is to "facilitate environmental education among the three countries by establishing a network of relevant officials, experts and organisations including NGOs" (Progress Report on the Tripartite Environment Ministers Meeting, 2001).

Origin of TEEN Project

The tripartite environmental educational project was initially suggested during the second Tripartite

Environment Ministers' Meeting (TEMM) in February 2000 as the means to achieve one of the priority

¹ Environmental cooperation frameworks in the region include SOM, TEMM, TRADP (UNDP facilitated Tumen River Area Development Programme, consisting of China, two Koreas, Mongolia, and Russia. In 1995 a Memorandum of Understanding for environment was signed), NEASPEC (Northeast Asia Sub-regional Programme of Environmental Cooperation), NOWPAP (Northwest Pacific Action Plan), NAPEP(North Asia-Pacific Environment Partnership), NEAC (Northeast Asian Conference on Environmental Cooperation).

² Northeast Asia region normally consists of People's Republic of China, Democratic People's Republic of Korea (North Korea), Japan, Mongolia, Republic of Korea (South Korea) and Russian Far East.

areas of cooperation³. Officials from participating countries, i.e., China, Japan and South Korea, signed a Memorandum of Understanding, which outlines the guidelines for cooperation on environmental education among the three countries. Ministers of Environmental from China, Korean, and Japan concurred that environmental cooperation should be strengthened by means of promoting "the awareness of a shared environmental community" among the three countries (MOU of TEMM, 2000).

In June 2000, at the Senior Officials' Meeting for Environment Cooperation (SOM) in Cheju, Korea, the topic of promoting awareness of the environmental community was further discussed. Representatives from three countries agreed on building a Tripartite Environmental Education Network (TEEN). Subsequently, during an Informal Environment Ministers Meeting held in September 2000, in Kita-Kyushu, Japan, it was agreed that a first workshop and symposium of TEEN would be held in November 2000. It was also agreed that three member countries should take turns in hosting the annual meeting of TEEN.

Chronology of the TEEN project and Its Current State

The chronology of the Teen Project as follows (Table 1):

³ The priority areas of cooperation among the three countries as agreed are: "1) raising awareness that the three countries are part of the same environmental community; 2) activating information exchange; 3) strengthening cooperation in environmental research; 4) fostering cooperation in the field of environmental industry and on environmental technology; 5) pursuing appropriate measures to prevent air pollution and to protect the marine environment; and 6) strengthening cooperation on addressing global environmental issues, such as biodiversity and climate change" (Joint Communiqué of the First Tripartite Environment Ministers Meeting among China, Japan, Republic of Korea, 13th January 1999, Seoul, Republic of Korea).

Feb. 2000	2 nd TEMM meeting	MOU - guideline for cooperation on environmental education & sensitisation of "environmental community"
June 2000	SOM, Cheju	Agreement to build TEEN in order to promote awareness of the environmental community in 3 countries
Sept. 2000	Ad hoc meeting of Ministers, Kita-Kyushu	Agreed to hold 1 st TEEN symposium in Nov. 2000
Nov. 2000	1 st TEEN meeting (workshop & symposium)	 Discussed future plan of actions Development of a database on Environmental Education as 1st step
Jan. 2001	Coordinator's meeting,	Agree to set up an Advisory Board with the mandate to survey the current state of EE in each country and to advise the governments on TEEN's activities and plans
Oct. 2001	2 nd TEEN workshop, Beijing	 To decide on the modality of TEEN and its future plan of collaboration To review progress made in each country

Table 1: The Chronology of TEEN Project Development, 2000-2001

First workshop and agreed objectives and activities

The first meeting of the TEEN Project, including a two-day-workshop and a symposium, was attended by twenty participants including government officials, academics and NGO representatives from China, Japan, and South Korea. The Japanese Environmental Agency, hosted the first meeting and suggested that the modality of TEEN should be decided during the second workshop one year later (TEEN Summary Report, Environmental Agency of Japan, 2000).

According to the MOU of TEMM and the summary report of first workshop of TEEN, the TEEN Project should be developed in six stages, namely:

- To identify priority actions;
- To choose the "hot-spots" (programmes addressing primary problems, and of high visibility) on environmental education in each country;
- To find funding resources;
- To develop human recourses;
- To share the experiences gained;
- To evaluate the outcome.

The workshop participants agreed that sharing information, materials, and human resources should be

the first step toward the creation of an environmental education network and the development of a common Database about NGO activities for environmental education was agreed to become the first planned joint action. This decision was taken after lengthy negotiations since the perceived needs of the three Parties were quite different.

The Japanese delegation, whose representatives were from academic, NGO and governmental sectors, was interested in network building. It was suggested that both the networks of organisations (which include governments, communities and schools), and those of individuals (consisting of officials, experts, teachers and students), should be developed within the region. Workshops targeted at various interest groups were recommended as well.

The Chinese representatives consisted mostly of government officials. They considered the lacking of adequate know-how and resources for environmental education as the primary problem. They therefore proposed cooperation in capacity building, particularly in training of teachers and school administrators.

The South Korean representatives, mostly members of academic institutions, stressed the importance of integrating environmental education at all levels of teaching and curricula in order to strengthen the environmental education in formal, informal, and professional education sectors.

The final agreement was that TEEN participants should start working on a common database programme. It was strongly recommended by the Japanese representatives and reflected the agenda of the Japanese Government. How to finance the Database programme was however not discussed and remains an unresolved issue for the Chinese and Korean delegations.

Database Program (January-April 2001) & Governance Structure

In January 2001, the Japanese Environmental Agency invited the coordinators or focal points in TEEN Project of the three countries to discuss how to build an environmental education database. It was agreed that to facilitate the building of a database, an advisory board should be set up to survey the existing NGOs in each country that were engaged in environmental education.

The advisory board would be composed of representatives from government, non-government, and semi-government sectors of the three countries. The function of the board would be to overview and to advise the three governments on TEEN's project activities and future plans.

The second workshop and symposium has been scheduled for October 2001 in Beijing.

Chinese officials agreed to host the second workshop and symposium in the autumn of 2001. in

accordance to the prior consensus of the Tripartite Environmental Ministers' Meeting (TEMM) the three member countries are supposed to take turns in hosting the annual meeting of TEEN. The broad objective of the second meeting was to continue the discussions.

As was agreed during the first TEEN meeting, the modality of TEEN and its future plan for collaboration should be on the agenda of the second meeting. This meeting would review the work done in each country to date, namely, the establishment of a database program. At least one senior official from each country was scheduled to be present during this meeting on behalf of TEMM and SOM.

Open Issues

Many questions and uncertainties remain in the course of implementation of the TEEN Project. Although the cooperation was agreed and supported by the three governments at TEMM and SOM, the implementation mechanism was not clearly defined by TEMM and SOM, nor at TEEN's first meeting. Similarly the question of financing remains equally unclear.

Organisation and Coordination

The coordination mechanism of TEEN is made through three appointed Focal Points. These country Focal Points are responsible for external and internal coordination and for the actual implementation of project activities. It was understood that the organisation to which these Focal Points belong would be responsible for the needed financial resources for project implementation.

The country Focal Points are assisted by an Advisory Board established within the respective three countries. The advisory board, composed of representatives from governmental, non-governmental, and semi-governmental bodies of the three countries, overviews and advises on the project.



Figure 1: Governance Structure of TEEN

Financing

The Japan Environmental Agency (JEA) emphasised that funding of the TEEN Project should be shared among the three countries. In other words, each country should raise funds independently. Japan however agreed to share part of its funding with China.

For the annual TEEN meeting, JEA suggested to seek co-sponsorship with international organizations, particularly within the framework of the Tripartite Environment Ministers Meeting (TEMM) Programmes. Since TEMM meetings were to rotate among the three parties, TEEN meeting could be organised as an add-on to the TEMM. This arrangement seemed to be cost efficient yet restrictive in terms of duration and numbers of participants.

The financing of TEEN projects remained to be a major stumbling block hindering project implementation. A moderate budget for the project was allocated by the Japanese Environmental Agency which was given to a Japanese NGO for implementation. This budget was then subdivided and distributed to the Chinese and Korean counterparts.

On the Chinese and Korean sides, this allocation was far from sufficient in making the TEEN programme operational. The budgetary shortfall has yet to be discussed openly. Ten months after the first meeting of TEEN, the database programme remains on the drawing board. The only action so far was a visit to TEEN countries by the Advisory Board to investigate the activities of NGOs.

Continuity and Institutional Memory

The key actors who could influence the agenda setting of TEEN have changed over time. Some primary decision-makers of the project from the Japanese Environmental Agency, are no longer involved in the project due to job transfers. These unplanned changes of actors due to new job assignments have made this start-up cooperation even more fragile.

Survey Feedback

In order to obtain a better understanding of the current state of TEEN, feedback from the participants was sought through a survey. A questionnaire was sent to all twenty-five participants of TEEN Project. A total number of 15 questionnaires were received. Among the fifteen valid responses, only one was from a member of the Advisory Board.

The reason why there were only fifteen responses (60% return rate) was because some of the original members of TEEN project have been assigned to new jobs and were therefore no longer responsible for

the TEEN project. Most of these changes happened with the Japanese and Korean delegations.

Findings

1. Goal Clarity

According to the answers received, there was obvious consensus among participants regarding the goal and objective of TEEN.

2. Accurate Problem Identification

48% of the respondents felt that the TEEN project adequately addressed problems of environmental education in their respective country.

3. Clarity of Project Implmentation

67% of the respondents felt unclear about the project agenda and its implementation.

4. Utility of the workshop format for information exchange

60% of the respondents expressed dissatisfaction with this format. Mostly Japanese participants felt that there was insufficient time for communicating the "Realities" of each country.

5. Project Duration

Almost all respondents mentioned that they were unclear about the duration and its intended completion date.

6. Database Project Status

80% respondents stated that the current database was "not operational".

60% felt there were insufficient resources available to carry out the intended project.

7. Information Exchange amongst Partners

All the respondents expressed interest to be updated about the project status in the other partner countries and 80% felt that they had little information about the other country's situation.

Discussion

Regional and subregional programmes on environmental cooperation have been strengthened and accelerated in Asia and the Pacific since 1992. However, the effectiveness of such cooperative efforts remains uncertain, and the outlook for future development is unclear in many cases (Kato & Takahashi, 2000). A review of the existing transborder cooperation of Northeast Asia in the area of environmental management revealed the following weaknesses:

• Parallel institutions and membership -

Countries tend to form multilateral alliances at the regional and sub-regional levels in addition to a myriad of bilateral arrangements on similar environmental issues and intent. This pattern of multiple arrangements defeats the very reason for forming a strategic alliance which after all is mostly meant to achieve economy of scale and better use of common environmental resources.

Multi-layered structure -

Analogous to the hierarchical structure of the public administrations in Northeast Asia, environmental cooperation took on similar organisational features. There are separate meetings for the ministers, for the senior officers, and for specific projects, yet no clear protocol for on-going coordination. This arrangement makes decision making process complicated and length.

• Weak institutional and financial structure -

By taking a step by step approach to transborder cooperation, Parties gradually learn to work as a team. Nevertheless, failure to create a clear institutional framework similar to ASEAN (Association of Southeast Asian Nations) early on and to make firm designation of the secretariat function, coupled with no firm financial commitment, have reduced various international initiatives of the region to ceremonial niceties.

The underlining cause of this lack of firm commitment is also due to the different national perspectives regarding priorities, obligations and approaches to environmental cooperation. *China* has suffered devastating environmental deterioration, including heavy industrial pollution, desertification, inland water and coastal pollution. China believes subregional cooperation should be focused on these issues. China is also quite sensitive to the use of "transboundary" as it does not wish to be seen by other countries as causing pollution outside of its territorial boundaries.

Since most countries in East Asia are developing countries with limited resources in terms of science, personnel and finance, China believes developed countries in the subregion should offer substantial financial support for the establishment and operation of environmental programmes as well as technical assistance to projects in their priority areas.

Japan has long worked to satisfy China's demands through financing and implementing a number of environmental projects in China as part of its development assistance programme. Japan believes multilateral initiatives should not overlap with its bilateral and existing multilateral assistance projects. Instead, new initiatives should focus on monitoring of the state of the environment and transboundary pollution and not becoming another channel for assistance. Japan has therefore suggested that subregional countries should share the burden to some extent.

South Korea is keen to promote multilateral environmental cooperation in Northeast Asia. It took the middle ground that subregional initiatives should include both technical projects as preferred by China and monitoring-type environmental management projects as preferred by

Japan (Valencia, 1998).

Limited participation of citizens and NGOs

In this subregion, at the domestic level, the role of the public and NGO's in environmental activities has been limited, except civil society movements against industrial pollution as observed in Japan and South Korea, and nature and wildlife conservation activities (Takahashi, 2000; Ho, 2001). NGOs' participation in multilateral environmental cooperation has also been limited with the exception in nature and wildlife conservation.

The TEEN project unfortunately suffers from similar weaknesses. Of all the weaknesses, financial constraints seem to be the most critical since they made it impossible to move the TEEN project ahead in a swift manner. Data collection in China and possibly in Korea represents a more resource intensive undertaking especially where NGOs are concerned. In China, the development of environmental "social organisations" or NGOs only took off in the mid-1990. Basic data on the total number and geographic distribution of environmental NGOs and social organisations nation-wide are non-existent (Ho, 2001). Existing registrars of NGOs and social organisations offer little information since the majority of NGOs, including the green ones, prefer to register under an entity that hides their true nature. They thus vanish completely from the government's view. To establish a database, against this backdrop, of individuals and organisations active in the field of environmental education with reasonable reference value would require inter-ministerial cooperation, painstaking effort and major resource investment.

Japan was in favour of a co-financing and joint fund-raising approach. Each country has the responsibility to sponsor the implementation of TEEN. However, with little financial support from their home countries, both Chinese and Korean project participants expect that Japan Environmental Agency to sponsor the overall project implementation.

TEEN is further hampered by its too generally phrased objectives which are de-linked from a specific context. The contextual frame could be either based on particular environmental issues or based on shared eco-system at a lower aggregate and scale level e.g., lake, river, sea and its surrounding administrative units where the environmental interdependency could be felt more tangibly. Due to lack of contextualisation, TEEN remains a high-sounding vision but lacks the guidelines needed to break down the task of building "shared environmental community" into more tangible and achievable steps.

Barriers to Success

In addition to the weaknesses of the alliance structure, TEEN has also been confronted with other

challenges:

- The signed MOU provided the "shell" for further definition of specific actions. However, "empty shell" cooperation agreement which contains a general commitment to deal with environmental issues but leaves the details to be worked out to later, offers parties involved little impetus for immediate actions and resource commitments.
- 2) A "Framework Agreement" is a common practice in international diplomacy. However, TEEN's experience has shown it to be an ineffective and an inefficient instrument in dealing with complex and highly contentious issues such as environmental protection and sustainability.
- 3) The governance structure of TEEN (vertical and compartmental, see Figure 1) does not encourage regular and informal transboundary and transborder information sharing nor developing institutional capacity for grassroots actions.
- 4) Using workshop and symposium format for project definition and problem identification is conducive for information exchange, but insufficient for project planning and for building working teams especially in a cross-border context.
- 5) Loosely affiliated network structure with little sharing of resources and no shared work programme engenders low team interdependency, low team spirit and low transborder interaction. Consequently, transborder cooperation remains formalistic with no substance.
- 6) Top-down stakeholder approach discourages e.g., vertical (from national to local) and horizontal (from domestic to cross-border) linkages essential to realise and concretise cross- and trans-border cooperation.
- 7) The administrative approach to project implementation adopted by Japan and China where responsible government ministries took the lead has reduced further the potential of developing viable grassroots networks where interdependency is more acute and stronger ownership of TEEN and its vision.
- 8) Outsourcing the coordination role to a NGO by the Korean government had similar negative effect due to severe resource limitations and absence of grassroots context.
- 9)

Recommendations

TEEN shares common features with other transborder cooperation in Northeast Asia focusing on environmental protection. Therefore, lessons learnt could be useful for other similar regional cases of environmental cooperation.

In order to enhance the probability of TEEN's success, the following recommendations are proposed:

Recommendation I: Redefining the concept of "Region" in Northeast Asia to reflect "natural" ecological boundaries

In contrast to Europe, the term "region" in the Asian context is defined by political boundaries and therefore denotes a transboundary relationships amongst *nation states*. As a result, transborder

cooperation has rarely been structured along natural geographic and "common pool resources " (as suggested by Zarsky, 1995) boundaries at lower administrative level such as the provinces along the Tuman River, or shared seaboard of the Yellow Sea.

The probability of lower level regional integration tends to cause understandable anxiety of losing control in the respective capitals due to past history in Northeast Asia. Fear of dominance by the other parties also limits closer and integrative cooperation. Seeing from this perspective, the laissez-faire approach manifested in these transborder cooperation initiatives is a natural and a sure way of building trust and institutional capacity in managing closer transborder relationships.

Without negating such understandable national sentiment, time has come to look at transborder cooperation under a new light in order to solve some of the urgent needs regarding environmental degradation in the region. It is therefore recommended to redefine "regions" in an European sense of the word which delineates a region along the lines of an eco-system. This alternative definition would allow for the direct involvement of the lower administrative units in transborder cooperation and projects.

Recommendation II: Creating a new function for transborder geographic regions in Northeast Asia

In order to contextualise the intended transborder cooperation, transborder geographic regions need to be created and empowered to deal with complex transborder development issues. Grassroots projects involving local governments of bordering provinces of neighbouring countries need to be set up to help kick start alliances and to nurture the development of local transborder networks. Thus, the concept of "environmental community" is more robust. The involvement of local governments in such international cooperation has actually being stated in the point 5 of the 1st TEMM communique (1999).

Once empowered, the regions need to create institutions and corresponding administrative roles and functions which are needed for the building and sustaining any network organisations. These roles and functions are:

- 1) "Broker" identifying locally and transborder-wise potential strategic alliances and partners for environmental management
- 2) "Network Facilitator" facilitating the development of local networks to share common tasks and resources
- 3) "Safeguard" guaranteeing the interests of stakeholders, in this case including the states
- 4) "Agent of Learning" overseeing the growth and organisational learning of these networks and alliances.

Different local organisations, including NGOs could assume these network roles and work toward creating individual and organisational networks to support transborder collaboration in managing developmental needs of the region and its impact on environment.

Recommendation III: Linking Transborder environmental objectives with economic and social development objectives

In the past, environmental quality has been treated typically as an amenity to be balanced and traded off against economic growth. Since the 1992 Earth Summit in Rio, a new paradigm suggested instead that environment and development goals should be integrated and synergies thought whenever possible. Although there is greater awareness that environment and development are not concepts at odds with each other in the Northeast Asia. Nevertheless, the greening of the government policies in China and others alike has not been rapid and not trickled down to the community, business and local administrative level. Therefore the need for environmental education and the need to challenge such "either-or" thinking which continues to dominate economic planning through intensive media campaign and public education. Such reframing of the mindset will foster a different development strategy and economic planning.

Contextualising transborder cooperation at the local level helps to bring the interdependency and the need for coordination and common environmental standards into sharper focus. However, without linking trade and other economic cooperation such transborder environmental cooperation lacks teeth to have real impact. Therefore, it is essential to develop transborder projects which respond to economic, social and environmental needs in an integrated manner.

The proposed link between economic interest and environmental interest is not new, it has already been encapsulated in the Kyoto Protocol of the Climate Change Convention⁴. Such projects could be financed through Clean Development Mechanism (CDM) or Joint-Implementation schemes. A careful study of the potential match within the seaboard regions of Northeast China, Japan and South Korea for example could yield projects qualified for either CDM or JI schemes.

In addition to making environmental quality and economic growth compatible, it is necessary to nurture an environmental industry⁵ suited for this new paradigm. A cross-border regional network

⁴ Details could be read in Saner, Jáuregui & Yiu (eds). 2001, *Climate Change and Environmental Negotiations: Global and Local Dynamics. Reflections from Bolivia.* La Paz: Los Amigos del Libro.

⁵ In the 10th National Development Plan, Chinese government has adopted the concept of "green economy" as the next stage of economic development. Green economy will permeate throughout all aspects of daily life, such as food, clothing, housing and transportation, by developing and adopting environmental friendly technology, raw materials, waste disposal etc. It is projected that the size of green economy will grow rapidly and be worth RNB

centred on specific regional needs could be an interesting first step toward "regional" integration on environmental management.

Building on the success of these transborder projects, sustainable mechanisms for transborder environmental management could thus be developed.

Recommendation IV: Capacity building regarding network skills within the transborder regions

In order to strengthen the momentum for transborder regional development and environmental management, local capacity in the area of networking skills need to be built up. In examining the transborder cooperation in Europe, Saner & Yiu (2000) proposed the following champions/actors who would have pivotal roles to playing in creating vibrant transborder regions. They are:

- "Entrepreneurial Politicians" within the respective public administration;
- "Cultural Ambassadors" within the societies/communities at large in the respective country regions;

• "Business Diplomats" within small and large companies in the adjacent border regions. An additional role within the NGO community that would be important to take up by individuals is "Environmental Catalysts" who would facilitate the consolidation of multiple interests and forge the links between different environmental initiatives.

Recommendation V: Investment is needed in inter-institutional team development for the country/provincial representatives assigned to be the focal points of the transborder cooperation projects

The transborder coordination mechanism is a form of virtual organisation which has a mandate, specific tasks, personnel (even thought it could be part-time and temporary), procedures for decision making and information sharing and constituencies. Like all virtual organisations, it takes effort and commitment to make this mechanism work efficiently and effectively.

When such a virtual organisation consists of both individuals and organisations representing different national and organisational cultures, priorities, and interests, it cannot be taken for granted that it will function smoothly by itself. Therefore, interventions which support the inter-institutional team development will be essential to build sufficient management capacity required to ensure success of the strategically important multilateral "coordination mechanism".

Conclusion

In order to effectively preserve and sustain environmental quality, a strategic alliance approach needs to

^{3,600} billion (approximately 400 billion US dollars) by 2005.

be adopted in the form of transborder cooperation. Although governments in Northeast Asian region have established various multilateral mechanisms for environmental cooperation since 1990's, this pattern of regional initiatives has not been effective.

Even though cooperative parties are well aware of the benefits in cooperation and committed to the established goals, it remains unclear how to actually achieve joint environmental management of shared environmental resources. In addition, consensus for cooperation does not smooth away contradictory perceptions on which imminent issues to address and how to address them.

Daunting hurdles to regional cooperation exist due to divergent perceptions and practices, which are further hampered by the lack of financial commitment. Financial problems, in TEEN project as well as in most other environmental cooperative initiatives in the region, is due to the lack of established transborder institutions and the reluctance of creating dependencies on one or two more wealthy countries. Failure in identifying concrete projects that could be financed through multilateral sources or local initiatives within the transborder region also makes it hard to move ahead.

In order to achieve the goals of transborder environmental management, it was proposed in this paper to start from regional cooperation at the local level and by empower local administrative units to be the key actors in the transborder cooperation. The central government in turn takes a stakeholder position by setting the ground rules and safeguarding the national interests in such transborder cooperation.

Authors also suggested capacity building regarding different roles and skills in facilitating transborder cooperation. They are entrepreneurial politicians, cultural ambassadors, business diplomats and environmental catalysts who would initiate potential transborder projects, securing funding and other resources for the joint projects and developing transborder organisations and mechanisms. Lastly, a recommendation was made concerning an inter-institutional team-building input for the designated coordination bodies to lay the foundation for effective function of these multi-lateral transborder entities.

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