COMMUNITY-BASED RESOURCE MANAGEMENT

AS A STRATEGY FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

Community-Based Resource Management (CBRM), a strategy aimed at achieving sustainable development, has been conceived as a process by which the people are given the opportunity and/or responsibility to manage and utilise resources with a concern for future needs. CBRM is practised in many countries including the Philippines. Through a presentation of CBRM undertakings in the Philippines, the paper attempts to identify the features of CBRM, focusing on the experience of such projects. The paper concludes by identifying the elements of CBRM and factors critical to its adoption and implementation.

INTRODUCTION

Sustainable development alludes to two basic goals, namely the survival and well-being of the people; and the well-being and integrity of life support systems. The first goal involves satisfying the needs of people for food, water, clothing, shelter, energy, jobs and health, and providing the opportunity for a better life to all. The second goal implies human responsibility for maintaining the integrity of natural life Support systems and of other species on earth. (World Commission on Environment and Development 1987; Goodland and Ledoc 1987; Repetto 1986; Pearce 1988).

These two goals are not always compatible. A lot however depends on how much or how often the first goal is achieved. Conditions for achieving these goals include:

a. Ensuring that human demand in the environment does not exceed the capacity of the environment to support it, bearing in mind the environmental requirements of other species;

b. Providing for human 'needs both by increasing productivity potential and by providing greater equality of economic opportunity for all;

c. Promoting values that encourage sustainable rates and types of resource consumption and waste disposal;

d. Maintaining the habitats of other species and ensuring that any use of other species is sustainable; and

e. Enabling people to meet the above conditions in ways of their choosing.

The for sustainable development elicited varied responses from different of societies worldwide. The Philippines as a developing country, responded by formulating its own strategy for sustainable development and identifying the areas to which actions must be directed (DENA 1990).

In this context, steps are being taken, if only to avert the impending crises of population growth, resource depletion, environmental degradation and consequentially, poverty. A related action is the documentation of local strategies which have inherent orientation towards sustainability.

This paper attempts to highlight the experience, trends and prospects with respect to the practice of Community-Based Resource Management (CBRM) in the country. The first section of the paper presents the
underlying assumptions of CBRM and its key elements. It then proceeds to present cases of CBRM, highlighting the experience of each project. The next section argues that CBRM is indeed a potent and workable strategy for sustainable development. Finally, the agenda for action and research is presented for possible collaboration at the regional level.

COMMUNITY-BASED RESOURCE MANAGEMENT AS A STRATEGY

Definitions

CBRM is conceived as a process by which the people themselves are given the opportunity and/or responsibility to manage their own resources, define their needs, goals and aspirations, and make decisions affecting their well-being (Experts’ Workshop 1991). Next to management the key concepts are community and resources.

Community refers to a group of people with influence or control, claims and/or common interest over the resource(s) of a geographically defined area. Resources are naturally existing biotic or abiotic raw materials having multi-dimensional potential uses and which are transformed into benefits based on needs.

UNDERLYING ASSUMPTIONS

The quality of life of the population is largely a factor of resource endowment (land, water, forests, etc.) and the manner in which these resources are allocated by people singly or collectively. People can opt to derive maximum benefits from these resources within a short term by designing and applying technologies to their favour with utter disregard for environmental consequences of their actions. Or, they may decide to take the concern for the future needs and benefits as the overriding principle for utilizing the available resources. The latter is the essence of sustainable development. The analysis of CBRM necessarily involves treatment of technology and institutions as factors impinging upon population-resource interaction. It is in the application of technologies as governed by institutions that the society's impact on the environment can take varied forms. CBRM as a strategy for sustainable development seeks to regulate people-resource interactions within a given locale or setting with a view of minimizing/ avoiding ecological aberrations, thereby ensuring benefits and services for the future generations.

CBRM as a strategy emphasizes the significance of considering/ specifying a particular locale or setting where people-resources interaction takes place. Interactional fields may range from the household level, to a community, an ecosystem, a basin area, a region or the country as a whole, depending upon the purpose of analysis. CBRM however, has a particular bias to smaller social units with a distinct pattern and level of organization and resource use. It is the belief that development should be designed in and for relatively localized ecoregions or zones.

CBRM requires inventory of resources and capabilities (both bio-physical and human) in a given area. Compatible uses of resources are determined with that of communities’ abilities to manage such resources. Enhancing communities, capabilities to manage resources for the long-term are of central importance in CBRM.

CBRM promotes community-centered and long-term goals. Collective efforts are needed to replace current traditional thinking which promotes self-centered, individualistic goals within a short-term.

CBRM proposes actions involving decision-making at lowest level possible. It allows for greater autonomy and control and the enhancement of distinct cultural integrity of the people in a given community.

CBRM is inherently evolutionary. Activities proceed from a step by step process, allowing a continuous cycle of learning and doing.

Key Elements of CBRM

In the Philippines, elements for a successful CBRM undertaking have been identified to include: (a) community control over the resources; (b) correct resource use; (c) availability of suitable technology; and (d) sound business development of the fruits of the effort. Livelihood development as an important element of CBRM
hinges upon successful community organizing, cooperative development, reliable access to natural resources, community resource management training, and the presence of a sufficient physical and service delivery infrastructure.

**Lessons and Prospects for CBRM in the Philippines**

Documentation of CBRM practices and policies indicates the growing interest towards understanding CBRM and its application nationwide. Several new projects with strong CBRM orientation are also being launched by various NGOs and governmental bodies.

This section of the paper highlights some of the development undertakings in the and the lessons gained with respect to CBRM.

**CASE 1: Mount Canlaon Project, Negros Island, Philippines**

A major problem confronting national park management in the Philippines is uncontrolled human occupancy or encroachment especially by lowland migrants on National Park, one of the oldest national parks in the country situated on the Island of Negros, is facing this problem. This has caused a rapid decline in forest cover and even destruction of the restored or reforested areas.

In response to the problems of occupancy and encroachment into the park, an Agroforestry Buffer Zone Project was set-up by the Department of Environment and Natural Resources (DENR) under the Rainfed Resource Development Project. It was piloted in one barangay, Biak-na-Bato, in Lia Castellana, Negros Occidental as a possible "social fencing" mechanism, where the programme provides the options for the community to secure their needs in some parts of the National Park (areas that they had been farming) and in exchange the community will assist in the protection of the forest in the park.

The project started with the conduct of a Rapid Rural Appraisal (RRA) which revealed that there is a high degree of heterogeneity of land "claims" in the national park. There are those long existing claimant-cultivators who were in the area even before it was declared a park, absentee claimants and "tenants" of the claimants as well as landless groups. The latter are the most destructive as they engage in firewood gathering and charcoal production inside the park. The RRA also indicated the need to generate an arrangement on acceptable product-sharing basis for whatever new crops will be introduced, since the land in the area cannot be covered by Certificate of Stewardship Contracts (CSC).

It was also recognized that DFNR must develop a new way of providing security of claims on products of the land to qualified occupants in order to enhance their participation in the project. Institutional mechanisms were also installed to generate support from local leaders (both formal and informal) for the project. When the project was implemented all these mechanisms were installed including farmers’ training, cross farm visits and even preferential hiring of qualified local staff. A high degree of participation was generated from members of the community. They were willing to accept the arrangement that they will be given security on products of the land and not the land itself, as they still recognize that it is a national park. According to them, this situation is more respectable than always being “fugitives of the law” in the national park. Claimant cultivators have also initiated the incorporation of soil-water-conservation measures in their farm through group work. They also started to perform their roles as forest protection agents in their respective areas. These transformations happened within a year after the project started.

During the second year, however, there were indications that the pilot "social fencing" strategy did not work inspite of the willingness of the community to participate in the project. A first reason was the "social fencing" did not cover the whole of the park boundary or buffer zone as it was confined only to one pilot site. Timber poaching, firewood gathering, charcoal making and other illegal activities did still go on in other parts of the park and was done by a substantially greater number of people than the participating community. It became apparent that they did not have the capacity to perform their "buffering" or protection duties facing the numerous and often well armed or "protected" illegal users of the park. To be effective, the "social fencing" should cover the whole boundary of the national park. A second reason was that communities Who participate in this "social fencing" process were not provided with all the necessary support in terms of legal authority, adequate protection and mobility to respond quickly to the very dynamic situations in the park.

**Lessons learned**
1. Participation of communities in national park protection and management can be elicited by providing them with options that will increase the ability to secure their basic needs. It is a very important element of the "social fencing" strategy.

2. Security of obtaining products from the land instead of land tenurial security is a possible option for community occupants in the national park provided claimant-cultivator relationship is taken into account.

3. Assessment, and rapid appraisal of needs to determine constraints in integrating community occupants into national park management should be part of the whole project planning and implementation process.

4. Cross farm visits and on-the-site farmers training are effective extension strategies to encourage farmers' participation.

5. "Social fencing" in buffer zones of national parks will only be effective if it involves the whole area around the park instead of only a community or a site.

CASE 2: Kalahari Educational Foundation (KEF) in Northern Luzon

The case of KEF is classical in the history of the Social Forestry Programme in the Philippines. It has served as the basis for the present communal (or community) forest lease of the Integrated Social Forestry Programme of the government. It also represents a case of one possible solution to the issue of the incongruence between national and centralistic land laws versus local ancestral land claims by ethnic groups who have occupied the uplands for a long time.

The area involved covers 14,730 hectares of generally steep to maintenance terrain in Santa Fe, Nueva Vizcaya province in Northern Luzon inhabited by a cultural community group known as the Ikalahan.

This area was characterized by uncontrolled fires associated with shifting cultivation dominantly practiced in the area and increasing land claims by powerful and well connected lowland groups. The first communal land lease covering the whole 14,730 hectares was obtained through the catalytic intervention of a missionary. The lease provided that the Foundation developed a Watershed Management Plan which should include reforestation, forest protection, agroforestry development and fire control measures.

Today, some seventeen years later, the KEF reservation has retained its forest cover while the neighbouring areas have practically been deforested, fires have been reduced by 80 percent, and 89.5 percent of the respondents in a recent study indicated that they have benefited from the Foundation. The KEF has also enhanced forest conservation, especially of some local tree species through an economic incentive provided by a locally developed food processing plant. The KEF is able to produce locally processed products, especially from local tree species which have become economically viable. Members of local communities now protect their indigenous species since they can sell fruits to the food processing plant.

1. Lessons generated by the Kalahan experience indicate that sustainable community-based natural resource management can be attained by the following combination of strategies:

2. Granting of long term tenurial security through a communal land lease, in this case, to an ethnic group with ancestral claims to the land.

3. Use of indigenous system and organization for control and regulation of the use of natural resources. The traditional leadership and decision-making among the Kalahan with the elders serving as members of the Board of Trustees of the Foundation was retained but provided with legal form. The KEF in itself is just a legal personality of the same community. This also holds true with the promotion of the indigenous technology such as the 'gengen' for soil and water conservation.

4. The role of the "bridge catalyst" who links the community with the outside validity, i.e. Bureau of Forest Development and the national government, is important. This role for KEF was effectively assumed by the missionary.

5. Participation of the community in forest conservation can be enhanced by providing economic incentives such as the benefits derived from fruit, the processing of which created the motivation among members
of the local community to protect indigenous tree species. Participation can be elicited if the project provides them with options to meet their basic needs. The KEF is involved not only in forest conservation but also in providing education and health services to the community.

**CASE 3: The Magdungao Agroforestry Project in the Philippines**

This is one amongst the few relatively successful community-based projects of DENR in the uplands. This project has been running for five years. The project area, in Passi, Iloilo, Panay Island, is situated in a dominantly upland with rolling to steep slopes virtually devoid of trees and covered only by Imperata grass. It used to be a large landholding of one family which was occupied by a large group of migrants from neighbouring towns and provinces. Before the project was implemented, the area was generally characterized as marginal (with low productivity and poor soil). There was a scarcity of water both for crop production and domestic consumption during the dry season, prevalence of seasonal diseases such as typhoid and dysentery and a disturbed peace and order situation.

In the implementation of the project, DENR was fortunate to employ two key project staff (Project manager and Community Development Work) who were innovative and socially oriented. Using the basic needs approach and by living in the community, they were able to gain the confidence, of the community. They organized the community in groups to install soil and water conservation structures, water impoundments, graded trails, communal reforestation and even school building construction. CSCs were also issued to provide community members with tenurial security on their land. After three years a farmer organization was set-up in the project site as a legal entity representing the whole community.

Today, the whole area is virtually covered with terraces cropped with very productive vegetable and grain crops, including rice; grasslands have been communal and Private forest; water supply is more reliable and adequate in terms of quantity and quality, wildlife has gradually returned to the area; and the peace and order situation has improved. It has also become an Upland Development Training Centre where farm extensionists teach other farmers in the whole region upland technology by showing their own farms.

**Lessons learned**

1. Proper selection and evaluation of project staff is a key ingredient to the success of the project. The critical criteria to be used are technical capability (especially on agroforestry, extension and community organization), rural background or experience in community-based projects on the site. Preference should be given to the recruitment of local but highly qualified people.

2. Timely release of project funds is necessary so that work schedules can be followed and the confidence of farmers in the project will not be lost. Funds management, however, must have a certain level of transparency especially if it involves the farmers and the organization.

3. Farmers' participation can be obtained through:
   a. involvement of project participants in planning, implementation, monitoring and evaluation;
   b. identification and provision of options to meet the farmers' basic needs;
   c. incorporation of incentive mechanisms such as farm cross visits, recognition of outstanding farmers.

4. Community participation can be obtained through:
   a. use of indigenous or existing organizations for project implementation;
   b. introduction of income generating projects;
   c. generation of community revolving fund generated by group activities and managed by the organization;
   d. involvement of the community and its leaders in all phases of project development and implementation;
   e. use of material inputs as catalysts to community activities provided they are not given as handouts;
f. formation of work groups to implement labour intensive activities such as terracing graded trail construction; and

g. staff participation in the affairs of the community besides their regular duties.

5. Provision of land tenure security.

6. Development of institutional linkage at local, provincial, regional and national levels.

7. Use of farmer-based extension strategy where farmers teach other farmers by example.

CASE 4: The Case of Women and Agroforestry in Guimaras Island, Panay, Philippines

Guimaras Island is a sub-province of Iloilo in West Visayas, Philippines. The island is dominated by a hilly topography and generally acidic soil except in areas where the base is calcareous.

The project was set up by a non-governmental Organisation in one of the Southern towns identified as a poverty area by the National Economic Development Authority (NEDA). The development project initially consisted of primarily health care components, such as deep wells for potable water, food for children, constructing water-sealed toilets and education. During the later stages of the project attention was also given to livelihood sources for greater sustenance of the efforts.

Among several livelihood projects initiated in the project area in Guimaras Island, the most successful is the use of Pandanus sp leaves as handicraft material for making bags, hats, mats and other items sold in the market. Women are involved in these activities.

The project started with the observation that Pandanus is abundant in one of the sitios (small village) of the town where the project is situated and that the women of some households are engaged in the production of small scale handicrafts. The project then assigned a female extension worker to work with the women's group in the sitio to learn what they wanted to do, which were to improve the design of their handicrafts, and link up to move up-market (in terms of price and reliability of market outlets).

Through the extension worker, the NGO provided training by bringing in handicraft technicians to work with the women's group to improve the design and workmanship of their handicraft products. It also conduct together with the women's group, a market study to identify the approve market outlets and arrangements for their products. The women's also organized themselves to deal with the formal market outlets. They set aside portions of their earnings for membership fees and to build up a savings fund. With an improved design, an assured market outlet and an increasing volume of products sold, the household income from this livelihood increased to the point that the men started to assist by planting more pandanums between rows of old coconut. This process enhanced the establishment of a more productive agroforestry system in the project area which is coconut-based.

Lessons learned

1. Economic incentives are an effective driving force for the implementation of a productive and ecologically viable agroforestry

2. Viable livelihood activities related to an ecologically enhancing agro-forestry project to improve household income can be taken up by developing an existing economic activity.

3. A combination of indigenous resources and improvement of local skills can serve as a starting point for a viable community-based project.

4. Female extension agents are generally more effective in reaching women's groups and Working with them.

CASE 5: The Honda Bay Resources Management Project³
The Honda Bay is a major fishing pond in the city of Puerto Princesa, Palawan Island. About 15 barangays are directly dependent on the bay for livelihood. The bay however, has been an object of over-exploitation caused by: (a) destructive fishing methods such as dynamites of blast fishing and cyanide fishing; and (b) encroachment by transients employing more sophisticated gear such as trawl, mini-pursue seine and ring nets. While there are existing laws and regulations regarding illegal fishing practices, enforcement has not always been effective. Recognizing all these factors and issues, the project focused more on people and ecological habitat development, with the objectives of providing livelihood; preventing extractive fishing methods; enriching the breeding and feeding grounds of marine life; and strengthening community values on environment protection, cooperativism and self-reliance. Essentially, the project aims to harness the communities in the proper use and protection of the coastal resources within their locality, by allowing them to have prior right to use the resources while assuming at the same time primary responsibility to protect the resources. This involved the use of strategies such as:

a. organizing, communities as co-implementors, into working groups or associations;
b. introducing technologies that are complementary, simple, and evolutionary;
c. providing technical assistance and support for secondary occupations;
d. on-site training activities in addition to structured seminar/workshops; and
e. coordinating closely with other developmental agencies and organizations.

Within an 18-month period, membership in the associations grew and a number of complementary projects were evolved. Such projects include: an oyster and mussel nursery; artificial reefs and fish shelter; seaweed culture; fish paste/sauce and salt production. But most importantly, through the active and vigilant role of the community in the project, trawls and ring net operations were minimized as well as the incidence of cyanide and blast fishing.

Lessons learned

1. Communities are capable of group efforts provided they are given collective access and responsibility for the resources.
2. Incentives can come in the form of technical assistance, and on-site training for experiential learning.
3. Technology transfer must be done gradually. Technologies must be complementary.
4. Reinforcements coming from governmental agencies are essential.

CASE 6: The Seven Lakes of San Pablo City

The City of San Pablo, dubbed as the city of seven lakes is 87 kilometers southwest of Manila. Located on the slope of the San Cristobal mountain with an elevation of about 500 feet above sea level, it has a total land area of 19,550 hectares. The city is under the administrative jurisdiction of the Laguna Lake Development Authority (LLDA). It has seven crater lakes where aquaculture is extensively practiced.

Conflicts and environmental stresses brought about by the introduction of the floating cage technology in the lakes prompted the creation of Resource Management Councils (RMC) to manage communal fishing areas and to provide a venue for fishermen to participate in the decision-making process affecting the fishery industry. To date, there are five RMCs in operation.

Resource Management Councils formulate and recommend policies and guidelines for all activities in the lake and its watershed; conduct assessments of the resources of the lake; implement/enforce rules and regulations in lake fisheries and related activities; formulate and promote programme and projects for the social, economic and livelihood development people dependent on the lake resources; arbitrate disputes on fishery rights and other related issues; assist LLDA in the evaluations of applications for the issuance of fishery rights; and perform such other functions the LLDA will delegate.
So far three RMCs have been able to formulate implementing rules for the fishery zoning for their respective lakes. It has been noted that there had been considerable success in organizing the RMCs. However, there are also indications that organizational strengthening is in order. Of major concern would be the commitment of members, leadership in RMCs, interference from interest groups and lack of political support.

The strength of RMCs as observed, includes: its sensitivity to the pulse of the community; instilling pride in the people's organization and, allowing for greater participation.

There are, however, areas to be clarified with respect to the power and authority of RMCs as an arm of LLDA for lake management. Issues revolve around jurisdiction and process, technical capability of RMCs and matters relating to fiscal policies and financial management.

**Lessons learned**

1. RMCs can be created to serve as mechanisms for partnership between the community of resource users and the governmental agencies concerned.
2. RMCs need strengthening by further specifying its powers and jurisdictions as well as enhancing their technical capabilities.
3. The representativeness of RMCs vis a vis interests of agencies involved must be ensured.
4. Incentives are needed for creating and sustaining RMCs.

**PROSPECTS FOR CBRM APPLICATION IN THE COUNTRY**

To date, there are a number of governmental policies and programmes with a high degree of CBRM orientation. This is particularly true in case of forestry, coastal fishery mining and irrigation. While these policies and programmes were in place long before, it is only very recently that CBRM as a strategy is being slowly understood and appreciated.

**Fishery Development**

A component of the Fishery Sector Programme is Coastal Resource Management which is an overall approach for planning the rehabilitation and regeneration of the degraded coastal areas.

The programme recognizes the primacy of the participation of the coastal community in its implementation. For this reason, CBRM is considered a key approach.

Involving the coastal communities in community-based resource management requires five essential activities or phases which include: integration; education; core group building for resource management; building responsibility around beneficial projects; and formalizing community's role. (Mu Mox 1991).

**Mines Development**

Republic Act No. 7076, known as the 'People’s Mining Act", was approved in 1991 as the government's response to uncontrolled and disorganized small scale mining.

This act aims to promote, develop, protect and rationalize viable small scale mining activities for the generation of more employment opportunities. It provides for the creation of a Peoples’ Small Scale Mining Programme for the small scale development and utilization of mineral resources. Programme features include, among others: identification, segregation and reservation of certain mineral lands as peoples' small scale mining areas; encouragement of the formation of cooperatives; generation of auxiliary livelihood activities; and the efficient collection of government revenues (Mayco and Santalines 1991).

**Forest Development**

There are three CBRM-related programmes under the forestry section. These are the: Integrated Social Forestry Programme; National Forestation Programme; and Community Forestry Programme (Berne 1991):
(a) **Integrated Social Forestry Programme (ISFP):** This programme, launched in 1982 envisages the maximisation of upland productivity, enhancing ecological stability, and improving the socioeconomic condition of forest occupants and communities dependent on the forest for livelihood. The programme's main feature is the issuance of Certificate of Stewardship Contracts (CSCs) which provide right of use of the land. To date, there are 3,038 ISFP projects involving 221,349 family beneficiaries covering 596,327 hectares of forest lands. A total of 155,083 CSCs have already been issued.

(b) **National Forestation Programme (NFP):** This programme introduced in 1986 to accelerate forest renewal adopts a holistic on reforestation approaches and schemes. Under the NFP, 1-4 million hectares of forest plantation are to be established from 1987 to 2000 at the rate of 100,000 hectares per year. An outstanding feature of the programme is the involvement of families, cooperatives, non-government organizations, communities and local governmental units. The programme is based on a contract agreement originally for a three-year period, whereby any given entity agrees to implement an activity or a series of activities to deforest denuded areas. To ensure sustained interest of contractors an instrument called a Forest Land Management Agreement (FLMA) was introduced, through which the reforestation contractor is assured of the benefits from reforestation for a period of 25 years. At present, a total of 19,909 reforestation contracts had been approved covering 214,284 hectares. Out of these, 1,998 are community reforestation contracts covering 91,476 hectares.

(c) **Community Forestry Programme (CFP):** Dubbed as "Kagubatang Pampamayanan," the CFP is aimed at abating forest denudation and at the same time providing some means of livelihood for upland dwellers. A community forestry site may be implemented in lands of the public domain including uplands, lowlands and mangrove areas, except in certain designated areas. Organized communities will be awarded a 25-year Community Forestry Management Agreement (CFMA), renewable for another 25 years over an area of 500 hectares but not exceeding 1,000 hectares.

What have been represented so far are but a few of the many cases of CBRM practices in the country, more still remain undocumented. Except for one, what was discussed represent projects with formal funding and sponsored by distinct agencies and organizations. There are those CBRM practices which evolved within certain communities through people's initiatives and without external or governmental interventions.

These practices may include those arrangements made with respect to maintenance of communal water system, grazing lands, ponds, artesian wells and irrigation canals.

Just to what manner and extent CBRM can be formulated and implemented in different sectors and within particular settings is a pressing concern to be addressed. The critical ingredients for a successful CBRM strategy have yet to be established. This necessarily involves systematic approaches and comparative studies. Moreover, it is to be recognized that CBRM exists in other countries in the region as well. It is possible, that some of these countries have more advanced understanding of and wider application of CBRM.

**Implications for Action**

Concerted and immediate actions needed to fully harness the potentials of CBRM for achieving sustainable development are as follows:

1. **Ascertaining essential elements of CBRM for a given resource**

   This particular task involves identification and verification of the elements/attributes of CBRM specifically the factors critical to its adoption and implementation. The following is a suggested listing of factors and issues one has to address in analyzing CBRM-related actions and policies.

   **A. Nature and scale of interactional fields**

   Defining the appropriate interactional fields is central to analysis of CBRM. An interactional field refers to the spatial locus of actions and interactions from among the resources, population, technology and institutions. With respect to resource management, an interactional field can be a forest area, a watershed, pastureland, coastal area, a farm or maybe a park. Politico-administratively, it may range from a village or barangay, a town, a province, a region or maybe to an entire archipelago. What could be the suitable/appropriate scale for CBRM? How does one pick the right scale for analytical purposes?

   **B. Community issues**
In general, a community can be defined as a group of people live in a geographically defined area, with a common history and a definite pattern of relationships.

A community however, as a distinct unit, is composed of other smaller social units and organizations. There exist a multiple array of social actors within a community that are involved in resource management activities (Cernea 1990).

In CBRM, one important issue is that of specifying the particular social unit or to what is referred to as the "community". Is it the family? the users of the resource? the formal local organization? or the entire village or barangay?

What must be the size of a social group to qualify under a CBRM scheme? What about the involvement of external organizations and interest groups?

Another issue relates to the capabilities and resources available the community. One has to understand the community's perception with respect to a particular resource and the mechanisms by which access to resources is governed.

Finally, in some resource management situations the user-manager may constitute a not-so-clearly defined set of individuals, not even a group or community and sometimes characterized by the absence of mechanisms for making or enforcing decisions.

C. Resources issues

The nature of the resource being managed will affect the features/elements of CBRM. There are at least three different characteristics of resources relevant to CBRM prescription. These are renewability, seasonality, and public perception of the resource (Upoff 1986, 29-31).

Renewability of the resources determines the type of organizational arrangements needed to correct drastic consequences of poor management. The choice would be between central government involvement and local organizations. Seasonality of the resource would demand more flexibility and informality in institutional arrangements. Likewise, the degree to which the community would take upon itself the management of the resources greatly depends upon their perception of the resource as either "public" or "private".

These resource characteristics would undoubtedly influence the choice of appropriate institutional arrangements and the prospects of CBRM in particular.

The costs and benefits accruing from resource management would likewise determine CBRM potentials. Four dimensions along which natural resources management costs and benefits can vary with respect to the users (actual/potential) are identified as follows (Upoff 1986, 21):

1. Temporal dimension
   (a) benefits accrue immediately or very soon
   (b) benefits accrue after a long time

2. Spatial Dimension
   (a) benefits accrue locally
   (b) benefits accrue remotely

3. Tangibility
   (a) benefits are quite evident
   (b) benefits are relatively hard to identify

4. Distribution
(a) benefits accrue to the same persons who bear the costs of management, or

(b) benefits accrue to different persons from those who bear the costs of management.

Finally, CBRM application can be examined in the light of issues dealing with common property resources. Surely, management of common property resources offers problematic yet interesting prospects for popularizing CBRM practices.

D. Technology issues

Ideally, technology must fit with the existing knowledge and capabilities of the community. That is technology must be compatible with people’s culture and aspirations.

While technological advances were generally aimed to improve people’s well-being, long-term undesirable consequences may not have been given serious thought. Indiscriminate introduction of technology for instance, may cause social and cultural disintegration and other difficulties to its recipient community.

A relevant question, therefore, is how do technologies deter or enhance the practice of CBRM? Is there enough evidence by which this question can be answered? Policies and programmes involving technology transfer and modification exist. Their consequences on CBRM adoption have yet to be ascertained.

E. Institutional Issues

Institutional concerns of CBRM involve looking at institutional arrangements and capabilities, legal instruments determining use and to resources, system of incentives and disincentives and the whole of relevant policies including support services. Also included are indigenous systems of local governance and resource management practices.

With respect to existing national policies and programmes, certain typologies are apparent, which include those dealing with; boundary enforcement, direct incentives, land incentives, decentralization/autonomous regional management, technology modification, institutional modification, and ancestral domains/rights.

To what extent these institutional issues influence CBRM provides an interest subject for analysis and discussion.

F. Community organizing issues

While the necessity of community organizing (CO) is recognized, there are still several issues to be resolved in so far as CO in CBRM is concerned. These include: training approaches for community organizer, the CO philosophy, determining entry points, and the role of community or extension agents.

G. Time and money

The costs of CBRM strategy translated in terms of time and money is an issue of practical significance. This is particularly true in most developing countries where financial assistance from richer countries and other funding institutions are needed for projects.

Just how much is needed to implement a CBRM project? How long does it take for a project to be operational? to be self-sustaining? Does it necessarily have to be expensive?

2. Area-specific documentation of CBRM processes

This implies a re-orientation from fragmentary, highly discipline-oriented research into a more holistic, highly contextualized and participatory research undertaking. A multi-disciplinary team is needed, one which will immerse itself in the realities of the community to capture the inherent evolutionary nature and processes of CBRM.
Figure 1 is a conceptual framework which presents some of the important considerations in the analysis of CBRM.

### Figure 1: Conceptual Framework of Community Based Resource Management

3. **Analysis of policies and policy instruments**

General application of CBRM requires support of a unified set of policies and policy instruments. Determining existing gaps and overlaps between and among policies and instruments is a necessity. This is particularly important given the crucial local policy level linkages inherent to CBRM. Understanding the translation of national policies into concrete local actions through the various hierarchical politico-administrative units must be seriously considered.

4. **Intra-regional studies on CBRM**

Cross-cultural sharing of lessons and experiences has always been a very rich and stimulating mechanism for learning. This will involve participation in symposia, workshops, conferences and seminars. More than these, however, a more meaningful action involves the formation of an inter-country team that would conduct observations and in-depth study of various CBRM cases in the Asia region. Together, the team will formulate the research/documentation framework, gather data and analyze them for concrete recommendations.

**CONCLUSION**

Sustainable development need not be elusive and untenable. There are strategies already in place which can be further understood and enhanced. One such strategy is CBRM which is based on the ideals of people empowerment, ecological sustainability, equitability, productivity and community self-reliance, among others.
There are cases from which lessons can be drawn for a broader application of CBRM. There are equally more policies and programmes of government with distinctly pronounced CBRM orientation. These are enough reasons to exert concerted efforts towards a better understanding of CBRM elements, processes and problems.

More research and documentation is needed to capture and ascertain the ingredients and other factors that would make CBRM acceptable and effective for a given setting. This demands area-specific research which would allow transdisciplinary efforts and adequate understanding of the evolutionary process characteristics of CBRM. Policies and policy instruments have to be evaluated for gaps and overlaps with the aim of formulating more responsive ones. This has to be conducted, aware of the hierarchical patterns obtaining in any politico-administrative entity.

But more importantly, general application of CBRM necessitates inter-country team involvement in research and other documentation activities. There are indeed lessons to be learned from each country in the Asia region.

REFERENCES


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Notes

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2This is a tenurial instrument issued by the Philippines Government for legitimate occupants of public land to give them security of claim on the land for 25 years, renewable for another 25 years.


7Three categories of institutions can be recognized: (a) organizations that are not institutions; (b) institutions that are not organizations; and (c) organizations that are institutions and vice-versa. CBRM analysis concerns with the second and third categories. These categorizations include policies, laws, ordinances, and organization, either local, regional and national, respectively.