The Sida Marine and Coastal Zone Initiative

Conflicts Regarding Natural Resources Utilization in Coastal Zones of Developing Countries

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Concept-paper on Conflicts Regarding Natural Resource Utilization in Coastal Zones of Developing Countries

The Sida Marine and Coastal Initiative

Foreword

This concept-paper on Conflicts Regarding Natural Resource Utilization in Coastal Zones of Developing Countries has been elaborated on request by the working team for the preparation of Sida's Marine and Coastal Zone Initiative, an intended policy programme with plans of action for development of tropical and sub-tropical marine and coastal areas.

The views presented are those of the author, Ms Elin Torell (Swedegroup International Consultants AB, Gothenburg) and are not necessarily shared by Sida.

The working team in Stockholm, September 1997

Summary

In coastal communities in developing countries population pressure, heightened calls for economic growth and quick modernization based on rapid natural resource extraction, must co-exist with an increased need for ecological balance and sustainable development. The strive towards economic development cause an increased complexity of economies, which together with a growing population pressure, are two of the underlying causes of environmental degradation and increasing resource scarcity, which in turn create tensions between different interests.

There is a complex web of actors involved in the resource utilization of a coastal zone. The actors can be divided into five broad groups, Developers, Conservationists, the Development Community, Primary Producers, and the Modern Sectors. The three former groups are actively trying to influence the development strategies of a coastal zone, where Developers and Conservationists can be seen as two extreme philosophies whose interests easily get into conflict. In this case, balancing is the key word, and here the aid community has a role to play, as it has a large influence of major interventions, at least outside the private sphere. The two remaining groups, are influencing the coastal structure at foot-level, where the Primary Producers are facing a growing competition both within the sector (for example within the fisheries sector) and from the Modern Sectors (such as conflicts between fisheries and commercial aquaculture).

The tensions evolving in the coastal zone can be divided into three categories: 1) tensions related to control, access, and unsustainable use of resources in the coastal zone, such as the conflict over Spratly Islands and tensions related to shrimp-farming in the Mekong River Delta; 2) tensions depending on activities in the coastal zone affecting other areas, such as oil pollution; and 3) tensions arising because of activities outside the coastal zone but affecting the coastal zone, such as upstream activities in the Mekong River Region affecting the delta. Tensions of all types are more or less unavoidable, and not always negative as they to a certain extent can be positive ingredients of a dynamic process. However, what is essential is to hinder the tensions from developing into conflicts. In order to secure a sustainable development, an integrated land and water resources planning mechanism has to be developed, in combination with environmental impact assessments, promotion of inter-agency co-operation and frameworks for the protection and conservation of threatened eco-systems.

When forming policies and strategies for development of coastal zones the following steps are suggested in order to develop a sound policy, that has a good chance of avoiding conflicts: 1) Define the geographical area; 2) Collect information about physical environment, the eco-system, social structures, etc.; 3) Prepare and develop policies and strategies for resource utilization; 4) Evaluate the considered policies and strategies; 5) Include public participation in the process of strategy development; 6) Implementation and evaluation.

Often in the case of developing countries, external organizations like Sida, can play an important mediating role in the process of solving conflicts regarding natural resource utilization. Apart from this, the donor community has an essential position in the coastal zone development. Firstly, they can promote and support the strengthening of coordination between states and between governmental organizations and improve the cross-sectoral communication. Secondly, they are able to support scientific relations between countries and give technical assistance. In the case when a donor is involved in a specific coastal zone project it is essential that the tensions and impacts evolving as an outcome of the project is addressed and considered before a decision to support the activity is taken.

Conflicts in coastal areas - a background

In coastal communities in developing countries population pressure, heightened calls for economic growth and quick modernization based on rapid natural resources extraction must co-exist with an increased need for ecological balance and sustainable development. Combining modernization and economic growth with the upkeeping of ecological balance and social stability is not an easy task, it requires complete knowledge of the context of the development. Often new activities and development operations are centered to the coastal areas, and since coastal areas traditionally are the focal point for the bulk of human activities, the development operations, often combined with population growth and/or migration, puts pressure on the coastal resources, causing competition and tensions between the users.

Causes of conflict.

The strive towards economic development often causes an increased complexity of economies and a larger interdependence between component sectors, but this does not necessarily mean a reduction of the dependence of natural resources. Far to often developing countries, with weak state administration, weak legal framework and inactivated civil societies, find themselves putting all eggs in one basket, by exploiting one or two natural resources like oil, fish or minerals, activities generating few spin-offs and qualified job opportunities. Many common pressures and conflicts between coastal resource users impact on living marine resources to a greater or lesser extent.

There are two interlinked limits to the available resources of any region; quantity and quality. As long as the amount of users does not exceed the sustainable limit for resource utilization, the number of conflicts will be held low, or as the Preparatory Committee for UNCED, Working Group II, put it "Free use and open access when demand is low poses no problem. However, when demand nears or exceeds supply, policies of open water access on the ocean environment create conflict among users and significant resource and environmental degradation".[1]

Developing countries often face a large population growth, one of the main underlying causes for the increasing scope and magnitude of environmental problems and pressures over resources. When the population increases, the availability of resources will be less per capita, in the end leading to a situation of rivalry. Scarcity of resources often leads to over-exploitation, and use of irrational and destructive methods of utilization, for example dynamiting and other unsustainable fishing methods. This leads to a deteriorated quality of resources, in the end intensifying the scarcity and tensions. In the case of dynamiting, not only does the method kill the juvenile fish, thus halting reproduction, but it also affects

[1] Trolldalen, J.M., 1996, p. 93.

the possibilities for rehabilitation of fish populations since it breaks down the surrounding environment.

Resource scarcity in combination with population growth and ambitions for economic development, may create a situation where old patterns of resource utilization change in order to fulfill the needs and goals for development. Coastal areas traditionally have a broad variety of uses, human settlement, agriculture, transport, fishing, etc. Earlier activities in the coastal areas were small-scale, supporting a local demand. However, the development ambitions have the effect of extending the markets and bringing new participants to the arena. The economic diversification can increase both the occurrence and severity of tensions over coastal resources. Exploitation of the coastal resources is often conducted at a speed that is unsustainable.

Traditionally, the coastal aquatic and wetland resources have been common property. It has been everyone's right to utilize the resources, for fishing, fish, shrimps, and mollusks, or for collecting firewood and other goods from mangroves, etc. With increasing pressure on the land the usage has, in some places, become excessive, leading to degradation or exhaustion. One potential cause of conflicts in wetland areas is when the common land is distributed to private interests disturbing the traditional patterns of land use. In this situation, the people living in the area will loose a vital resource, at the same time as a new participant arrives, inevitably creating a serious dispute and social tensions. One example of such a resource conflict is the situation when mangrove forests are distributed and converted into commercial aquaculture ponds.

Shrimp-farming in the Mekong River Delta

Vietnam is a poor country under pressure to achieve economic growth and to ease the population pressure. In wetland areas shrimp- and other aquaculture is a fast growing sector. It provides protein to the local diet, but foremost it is a way of earning foreign currency by export. Hence, the development of aquaculture has a high priority among the authorities. In the Mekong River Delta, brackish water shrimp culture has become popular, since it generates a higher income, at least in the short term, than for example rice cultivation. Aquaculture for high value species has a larger perspective than small-scale fishing, since the production is made for an international market, often involving large investors. Many persons have left their traditional jobs like rice farming or fishing in order to cultivate shrimps in their own ponds or work as laborers on shrimp farms. A lot of people migrate to the mangrove areas from neighboring areas with less opportunities for money generation. This migration flow causes local problems since it makes population increase very rapidly in the certain area.

The introduction of commercial shrimp-culture in wetlands disturbs the traditional pattern of land use. A new competitor over wetland resources is introduced, the shrimp farmer. Thus, both farmers and fishermen becomes dissatisfied as they looses an extra source of income. In delta areas aquaculture compete with the fisheries sector over the aquatic resources, which may give a smaller catch for both groups. The worsened condition may then force the fishermen to use unsustainable fishing methods like dynamiting and electric netting.

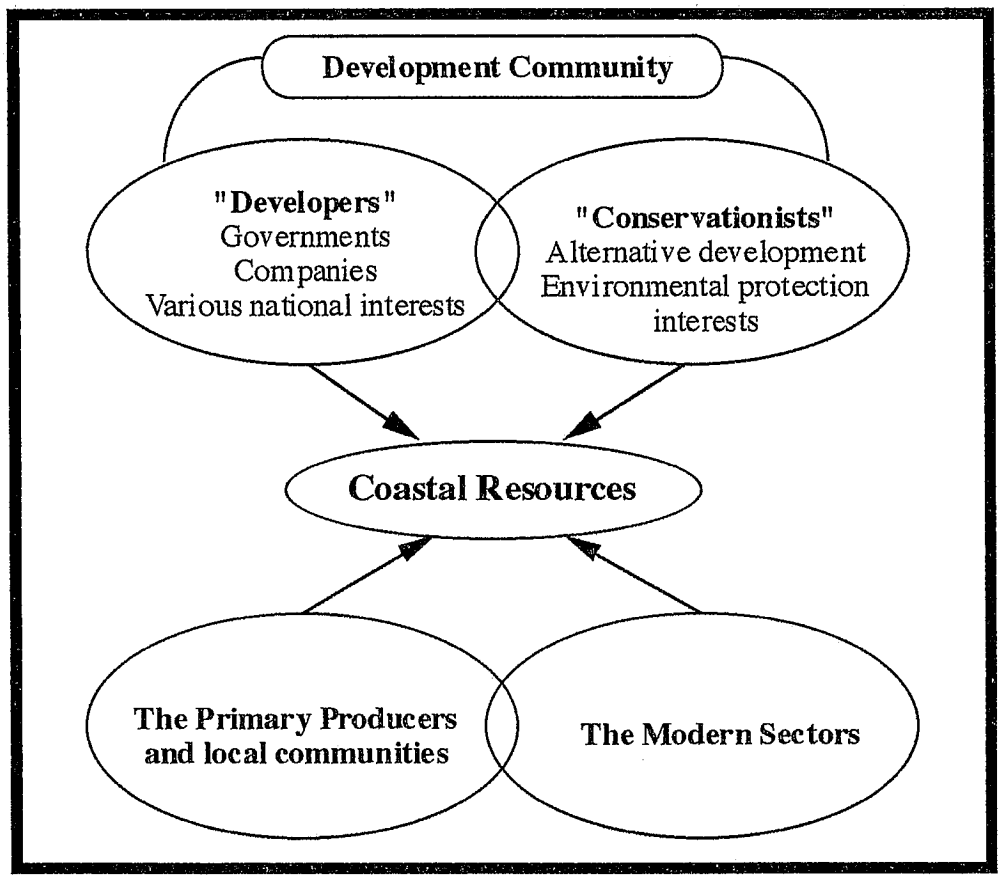
Commercial shrimp-farming, as conducted in the Mekong River Delta, is largely environmentally unsustainable since it destroys the mangrove and causes a severe loss of biodiversity. At present, the commercial shrimp-farming carried out in the delta can be seen as a kind of shifting cultivation, since the ponds are abandoned as soon as the mangroves and nutrients are lost.

The coastal resource ecosystem does not exist in isolation from land based ecosystems. They are interdependent. An industry in the inland may affect the coastal resources, both by air and water pollution. This emphasizes the need to look upon a larger area than only the shoreline when planning for the future development of the coastal zone.

The actors/users of coastal resources

The actors involved in the coastal zone can be divided into a set of clusters, as illustrated in figure 1. The first set of clusters, i.e. Developers, Conservationists and the Development Community, influences the coastal zone by setting policies and rules for the natural resource utilization.

Figure 1. The Actors in a Coastal Zone



The Developers and Conservationists can be seen as two extreme philosophies, where the former agitates that developing countries should follow the western model of infrastructure development, economic growth, and modernization. According to the Developers, there is an inherited good in modernization,

since economic growth in it self will safeguard a sustainable development and thus take care of social and ecological problems. Conservationists on the other hand claim that ecological balance, biodiversity and safeguarding of local communities are the prime goals. In their opinion major interventions are done at the expense of the local populations needs, since the economic growth, which only benefits an elite, results in a disturbed ecology.

In many developing countries, the developers, including governments and large TNCs has an indisputable power, focusing on natural resource development. As there often is a lack of public awareness, most of the opposition comes from external interests, such as NGOs. Naturally, there are voices calling out for an integrated approach, including the best parts from both philosophies, with a combination of "soft" economic development and environmental protection. However, too often tensions are created between the two interests, in the worst case leading to open conflicts. In this case, balancing is the key word, and here the aid community has a role to play. The donors have a pronounced role since they have influence over (and responsibility for) the financing of any major interventions outside the private sphere.

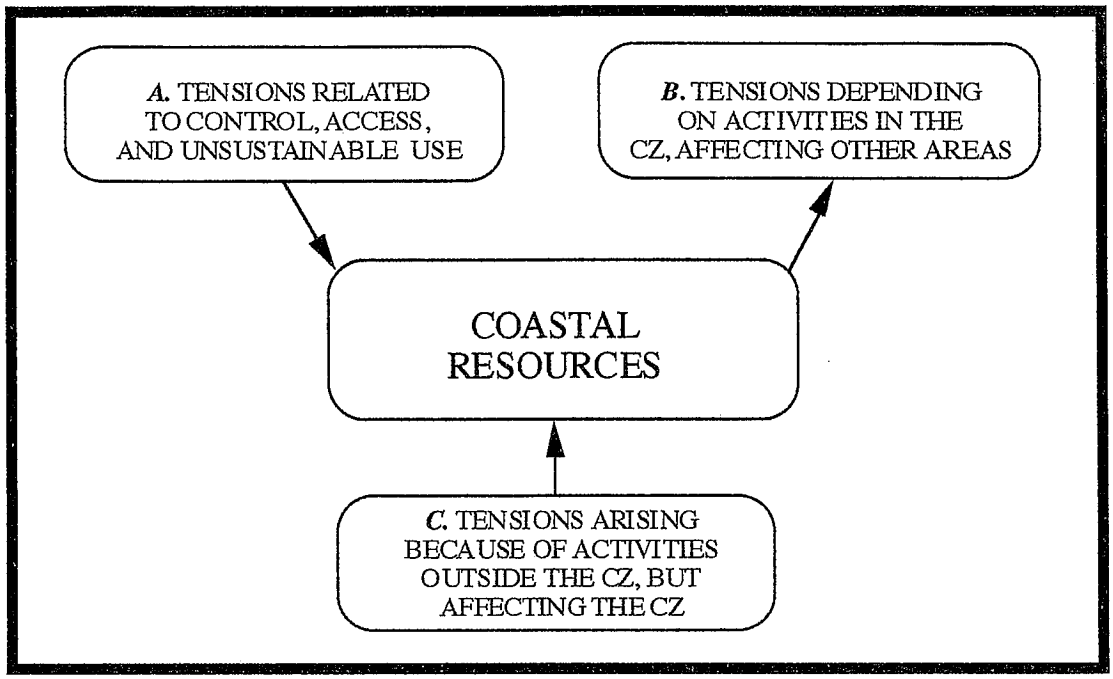
The second set of clusters, Primary Producers and the Modern Sectors, are influencing the coastal environment at foot level, as they are directly involved in the utilization of resources. Primary Producers and local communities represent the traditional sectors of agriculture, fisheries and forestry, while the Modern Sector naturally represents more recent activities such as industries, commercial aquaculture, etc. With increasing scarcity of land the tensions will grow both within sectors, in the case of for example fisheries leading to unsatisfactory catches and over-fishing, and between sectors. As mentioned earlier, the Primary Producers in many developing countries are facing a growing competition from the Modern Sectors, often backed by strong financial interests.

Figure 1 is an attempt to illustrate the complex web of actors involved in the resource utilization of a coastal zone. Tensions are created both within and between all of the clusters, although it is not certain that these pressures will lead to an open conflict. In some cases a certain amount of tension can be a positive ingredient of a dynamic process leading to an improved living condition. The important thing is to recognize the complexity of resource utilization and to integrate different interests and impacts in the planning process.

Different types of conflicts in the coastal zone.

Tensions in the coastal zone depend on different motives, related to scarcity or quality of resources. The reasons for conflict can be divided into three categories, illustrated in figure 2.

Figure 2. Different types of tensions related to the coastal zone



Tensions related to control, access, and unsustainable use of resources in the Coastal Zone.

The first kind of tensions (A) are related to access to, control over and unsustainable use of coastal resources, one example is territorial conflicts between states because of competition for access to resources. A state situated by the sea has the right to claim sovereignty over certain areas:

1. Internal waters
2. Territorial Sea extending 12 nautical miles from land (in this area, the coastal state has sovereignty, but must allow innocent passage of foreign shipping)
3. Contiguous Zone, extended to 24 nautical miles
4. the Continental Shelf
5. Exclusive Fishing Zone
6. Exclusive Economic Zone, EEZ (In an EEZ a country has sovereign rights of "exploring and exploiting, conserving and managing the natural resources, whether living or non-living"[2].)

Disputes between states are common regarding the extension of EEZs, for example in the case when two or more countries have mutual claims over an area because the sea area is too narrow to give room for an EEZ of 200 nautical miles for each nation, such as Norway-Russia claiming EEZs within the same part of the Barrentz Sea. The obvious reason for claiming an EEZ is that the state gains access to the resources, such as fish, hydrocarbons, and minerals, hidden in and beneath the water. Since UNCLOS III

[2] The United Nations Convention on the Law of the Sea, article 56.

about 40% of the sea area has been claimed by one or more states. In for instance Thailand, the surrounding waters have been completely divided, leading to a change of the status of for example the fish resources. It is estimated that the Thai fishing fleet has lost access to 300,000 km^2 of fishing grounds because of the proclamations of neighboring EEZs. In this case, the Thai fishermen, naturally quite dissatisfied, have been slow in adapting the new fishing borders, with the result of a long list of arrests of Thai fishing vessels in neighboring zones belonging to for example Vietnam, Malaysia, and Indonesia. It is difficult to verify that the fishing has been done in neighboring zones, and the Thai fishermen often complain that attacks and arrests are done incorrectly since they are carried out in waters that should be open for them or on their way from such waters.[3]

Another cause of conflict between states is when two or more countries claim sovereignty over an island or another territory which automatically would give the state access to the resources in the territory, or within an EEZ.[4] These type of conflict is common around the world, although somewhat over represented, in the Southwest Pacific, where surrounding states claim access to islands in order to obtain potential resources, such as oil, sea-bed minerals and fish. One example of such a conflict is the mutual claims over the Spratly Islands, further discussed below.

Spratly Islands - an example of conflicts between states

The Spratly islands are a group of low-lying and rocky outcrops in the South-China Sea, that until recently have not supported any permanent population. With a quick glance, the islands, would appear as unattractive to the surrounding countries, but in reality it is the other way around. The islands are situated in the most strategic waterway in the region as it is one of the busiest in the world, for example being the route for about 70% of the Japanese imports.

The islands and the surrounding water masses host hidden riches, such as the yellowfin tuna, hydrocarbons, guano fertilizers, and minerals beneath the seabed. It is estimated that the value of the yellowfin tuna, which migrates through parts of the Spratlies is approximately 50 million US dollars per year - a vast attraction for fishermen from Philippines, Taiwan, China, South Korea, Vietnam, and Malaysia. Findings of oil and natural gas in adjacent Philippine waters imply that there may be findings also in the waters around the Spratlies, although there is a lack of detailed knowledge.

At present the Spratly Islands are occupied by five nations, namely Vietnam, China, Taiwan, the Philippines, and Malaysia. The three former countries claim all of the islands and the surrounding waters, saying that their rights are based on historical discovery and documents, while the other countries claim parts of the area. All five countries occupy a certain amount of islands where they back their claims with military facilities, such as airstrips and armed forces. Brunei also claim territory, although the country has not occupied any of the islands. The obvious reason for the occupation is that by claiming the islands the country can extend the nation's territory with an EEZ of 200 nautical miles (371 km).

A third kind of tensions arising in coastal areas is disputes between users within a coastal zone, because of competition over resources. As discussed earlier, coastal areas have a broad variety of uses, which in

[3] Torell M., 1984, p. 200-201.
[4] According to UNCLOS, islands are entitled to both a continental shelf and an EEZ, while rocks that can not sustain human habitation or economic life are only entitled to a 12 nautical mile territorial sea.

some cases are incompatible with each other. When taking decisions about the development of a coastal area, or the utilization of water and related resources, there is seldom a sole option on how to use it. Several sectors, like fisheries, tourism, transport, etc. are, in one way or another, dependent on the availability of sufficient water resources. Some of the uses are compatible, while others are conflicting. It is not an easy task to decide how to use a coastal area. However, "the worse" it is utilized the more it might hinder development in other sectors and impair the general environmental condition of the area. One example of diverging interests between sectors is the case of aquaculture, agriculture and fisheries in wetland areas, like the Mekong Delta discussed above. Other cases of competition over coastal resources are for example: fisheries versus tourism and location of industries versus housing and recreational land use.

Tensions can also arise between users within a sector, for example within fisheries. In developing countries, fisheries are often small scale and family based, producing for a local market. The fishermen use low technology gear and small boats. Nowadays the small-scale fisheries have encountered increased competition among themselves because of population growth, as well as from large scale fisheries that are rivals in the fishing-grounds. Sometimes, as in the case of Malaysia, the controversies are said to emanate from ethnic differences. In Malaysia the bulk of large-scale trawlers are owned by ethnic Chinese, while the small-scale sector is dominated by ethnic Malays, thus adding an ethnic dimension to the conflict.

Tensions depending on activities in the Coastal Zone, affecting other areas.

Activities in the CZ often influence the environmental condition of other areas. Firstly, the stocks and organisms living in the CZ are not bound by human made boundaries. Generally, fish move freely in the ocean and rivers, visiting different reaches throughout the year. In a situation where a large amount of fish is caught in one coastal zone, the stock that reaches the neighboring zone is reduced in number, hence there is a risk of a destructive race for the common resources causing over-fishing and conflicts.

Secondly, there are activities such as oil extraction, industries and shipping, that may cause pollution. With the "assistance" of winds, currents, and tidal movements, pollutants may wander from one area to another and eventually cause damage in other zones. A third kind of activities causing trouble is the introduction of new species, which may severely affect food chains, stability and biodiversity. New species can accidentally be introduced by ballast waters, sea level canals, biofouling from vessels and mobile drilling. New species can also be introduced by aquacultural activities, involving alien species. In some cases aquacultural farms, also have been noticed to be the source of spreading diseases that has dispersed over large areas, even crossing borders.

Tensions arising because of activities outside the Coastal Zone, but affecting the Coastal Zone.

Coastal zones are affected by several activities in the so called hinterland. The activities may for example cause pollution (transported by river or air), or climatic changes with a following sea-level rise. Both changes in quantity and quality of water are threatening the stability of coastal areas. The main cause of deteriorating water quality is pollution from for example industries, deforestation (giving soil erosion), use of agro-chemicals, and domestic waste discharge. River deltas are especially sensitive areas since they depend on the quantity and quality water received by upstream countries. For example upstream deforestation inevitably leads to increased sedimentation of the rivers. Sedimentation has both positive and negative effects; it is an important nutrient to fish, and needed as a soil revitalizator in areas subjected to annual inundation. On the other hand it can cause changes in hydrological regimes, disturb aquatic ecosystems and fisheries, and decrease surface waterflow.

The Mekong River Delta

In the case of Mekong River Delta, it is the main area for Vietnam's agricultural expansion at the same time as it is an ecologically sensitive area struck by acid sulphate soils, salt water intrusion and flooding. The flat and low lying topography results in an extreme sensitivity to man-made activities. This sensitivity, and the downstream location make the delta vulnerable for future actions of the upstream countries. At present the largest threats to the stability and environmental condition of the delta is:

1. Hydropower development.

Hydropower development is very controversial throughout the Mekong River Basin. If the large planned projects are carried out in China, Laos and Cambodia, the water level will inevitably change as hydropower dams will be able to control the water flow. A reduced flow may cause, drought, a higher water temperature and deteriorating living conditions of aquatic resources, while a increased water flow may give a higher risk of flooding. Hydropower dams will also change the silt content reaching the delta.

2. Large scale irrigation schemes

Large scale irrigation schemes such as the Thai Khong-Chi-Mun Project aiming at, it is claimed, irrigating large parts of the Northeastern Thailand are a very controversial as this kind of projects may cause diminished water quantity and quality downstream. Even if the irrigation is done in a manner that lead back the same amount of water into the Mekong, it is most likely that the water will be of less quality because of salinity, pesticides, acidity, etc.

3. Trans-basin water diversions

One example of a trans-basin water diversion scheme is the Kok-Ing Nam Project, maybe the most controversial of all the Thai plans for the utilization of the Mekong. It is a plan to divert water from the Mekong and lead it into the Chao Praya River Basin. Naturally this action would cause changes in the water flow, leading to changes in the delta ecosystem, and downstream agriculture, fisheries and human uses. Also China is discussing plans of this kind, although it is not very likely that a project that complicated will be launched for a long time.

The world is today in the risk of climatic change and sea-level rise, a threat highly debated. Even a

moderate sea-level rise, would be of major significance for many low-lying coastal areas. The probable changes will not be carried out over night, but in time, several densely populated areas, such as deltas, could be flooded. Most likely, areas in the developing world (such as Bangladesh and Maldives) would be most affected, while industrialized states such as the Netherlands, although threatened, would be better equipped to meet the challenges. A sea-level rise would bring on several social and economic impacts, such as loss of productive crop-land, drinking water, and urban areas. Migration might eventually be the only solution, most likely causing tensions in the recipient areas.

Conflict Avoidance and Resolution

So far this paper have discussed the evolving of tensions in coastal zones. These tensions are more or less unavoidable, and as said earlier not always detrimental. However, what is essential, is to hinder the tensions from developing into conflicts. In order to secure a sustainable development, an integrated land and water resources planning mechanism has to be developed, in combination with environmental and social impact assessments, promotion of inter-agency co-operation, and frameworks for the protection and conservation of threatened ecosystems.

Economic development versus sustainability

As mentioned earlier, developing countries often have a general ambition of rapid economic development and poverty reduction. The development schemes have a number of goals including economic growth, and increased foreign direct investments and trade. One of the options, often used by developing countries, is to exploit the natural resource base in order to generate quick foreign exchange by export. If the strategy of utilizing the resource base is implemented it is important to have an integrated approach where the impacts (social and environmental) are investigated at the same time as the alternatives are thoroughly considered. In many cases the full resource value of coastal zones (for example the value of mangroves or recreation) is not properly appreciated and incorporated into decision-making, hence giving a false signal of abundance. If the true costs, related to for example depletion of biodiversity and loss of social and cultural values, would be imposed on the price of land or a resource, it may seem more attractive to check alternative development possibilities. Thus, when the price of a good rises, the incentive to economize increases.

If we return to the shrimp-farming in the Mekong River Delta, it is evident that the invisible benefits generated from mangrove forests, are neglected in the decision process. Hence, the authorities encourages activities resulting in non-optimal resource use, social tensions and environmental damage. In a worst case, the development of unsustainable shrimp-farming will continue at an uncontrolled manner, leading

to depletion of mangrove ecosystems, in the long run causing barren land, decreasing fish stocks, increasing environmental damage and social conflicts. One of the underlying problems, not unique for Vietnam, is that the need of economic development is seen as so urgent that decisions are taken that give a maximum profit in the short run, instead of introducing long-term sustainable strategies. Besides introducing a sound land pricing, one way of preventing this kind of mining of natural resources is by developing a clear and secure land ownership, combined with appropriate education, laws, and regulations. If the shrimp-farmer has secure access to the land that he utilizes at the same time as he is aware of the damages caused by certain methods, it is likely that he will chose a sustainable option, in order to maintain the resource for his family's future needs.

The development of policies and strategies in a coastal zone

When developing policies and strategies regarding the resource utilization in coastal zones the interrelationship between the various activities and resource demands has to be considered as well as the local, regional, national, and international goals regarding the zone. It is also important to consider the dynamic structure of a coastal system. The following steps gives an outline of how to develop a sound policy, that has a good chance of avoiding conflicts:

1. Define the geographical area.

The first step is to define the geographical area that should be managed. This should be done in order sort out the actors and activities involved, at the same time as an administrative boundary is created.

2. Collect information about physical environment, the eco-system, social structure, etc.

By collecting such information, a clear picture of the regional environmental, social and economic situation is formed. With help of this information, a number of "hot spots", i.e. critical incompatibilities and overlapping interests, can be discovered. Thus, the present tensions, between users or sectors as described earlier, and environmental pressures are recognized.

3. Prepare and develop policies and strategies for resource utilization

With background from the specific conditions and interests in an area, a number of strategies for development can be found. These can be of varying nature, such as the development of hydrocarbons, commercial aquaculture, large scale fisheries, industries or tourism. At this stage, a few options should be selected for further investigation. The following step is then to explore what kind of policy instruments are available for the implementation of the development strategies. There are several instruments that can be used when controlling the resource utilization of and area. Land use zoning is one example, often used in order to minimize potential environmental strain by activities, as it, if followed, separates inconsistent activities. Other instruments are quality targets, investment programs, taxes,

regulations, performance standards, and user charges. The instruments and strategies should be thoroughly considered, with the specific conditions and tensions in mind.

4. Evaluate the considered policies and strategies

When a few strategies and policies for development are selected, these options should be further explored. As a development alternative should not only be privately beneficial but also show a positive net social benefit, the environmental, social and economic impacts of each option should be considered. Environmental impacts assessments identifies anticipated impacts on the existing environment, and proposes measures for limiting such impacts. One problem is that the impacts tend to build up slowly often in a way that is difficult to spot, with several factors causing the tension in an interdependent and complex way. The strategy evaluation can be done by using a least-cost analysis, where all costs and benefits, both marketed and non-marketed are included. In the case of shrimp-cultivation, there are invisible benefits generated from the mangrove forests.[5] These benefits should be calculated in a decision by government regarding the future of the area in question, in order to prevent poor resource allocation and long run conflicts.

5. Include public participation in the process of strategy development

An effective integrated planning process is central for a sustainable development, since it eases the implementation of Government policies. In an ideal situation both the population living in the specific area and non-governmental organizations would be participating in the planning process. At this stage, the involved groups should discuss the hot spots and recognize the rights of each party, trying to find common ground. By including public participation the resistance to the carrying out of policies and development strategies will be minimized.

6. Implementation and evaluation

After a thorough investigation and revision of different development strategies, and policy instruments, it is time to implement the selected strategy. If the earlier work has been carried out properly, a multidiciplinary approach is chosen, leading to a balance among economic growth, human resource development, poverty reduction and environmental protection. In the implementation of a strategy it is important that there is an effective management cooperation and coordination between different government agencies as well as with the private sector, since a large proportion of tensions and environmental problems stem from the fragmentation of environmental responsibility and lack of coordination between the institutional units responsible for different sectors. During the implementation stage it is essential to monitor and evaluate the strategy in order to learn from the results, and thus be better equipped for the next round of strategy planning.

[5] Invisible benefits from mangroves are for example that they help stabilize the coastline, and protects the coastline from damaging natural forces such as storms, typhoons and tidal bore.

In the case of the Vietnamese role in the planning and management of the Mekong River, Vietnam is highly dependent on upstream users' behavior and economic activities, and thus indirectly on agreements regulating these behaviors. It is of course utterly important for Vietnam to maintain and improve the regional relations. In an extreme case, where the upstream countries would utilize the Mekong River maximally, without considering the Vietnamese requirements, a severe conflict would evolve - in the worst case leading to an armed conflict (although this scenario is not very likely). Several international fora, such as the Mekong River Commission, ASEAN, and the Asian Development Bank, are working with the MRB countries in different efforts to improve and integrate the regional planning. These efforts would in an ideal situation lead to a stable political structure that is able to resist the temptation of resource capture, instead encouraging environmentally sustainable development strategies.

Conflict resolution

No matter how well the resource utilization of a coastal area is planned, tensions between users both within and between nations can develop into more or less open conflicts. One reason may be that the circumstances change because of for example new oil findings, new fishing technologies or population growth. In a situation of conflict, a process of negotiation must be initiated. It is then essential that not only the immediate crisis situation are considered, but that measures generating a long-term sustainable resource management also are included. Often in the case of developing countries, an external organization like Sida or UNDP can play an important mediating role. As a mediator, the external organisation should try to be neutral and problem oriented, not finger pointing specific bad actors.

In order to simplify the negotiation, the first step is to define the geographical area and the parties involved. When this is done the parties may go on with identifying the problems and incompatible goals. Here the negotiator can help the parties with analyzing the problems and to identify the major hot spots, hence bringing the problems to a constructive level. When the goals and objectives of each party is spotted, it is time to develop a strategy or legal framework built on the identified positions and interests. Here external interests such as Sida, has a significant role to play, since they hold financial means. International financial institutions have the power of supporting selected activities and development schemes. One example of such an institution is the Asian Development Bank, ADB, one of the regional forums of cooperation for the Mekong River Basin, MRB. Until 1996 the ADB donated 7.6 million US dollars as technical assistance to support sub-regional activities.[6] Even if the ADB claims that the activities are induced by the MRB countries, it is evident that the large sums of money involved gives ADB a lot of power to direct the development.

[6] Since 1992 the ADB has, in concert with the members, focused on seven sectors, transport, energy, telecommunications, environment, human resource development, trade and investments, and tourism.

Returning to the Spratly islands discussed earlier, this is a case where conflicts already exists. For example in 1995, armed forces from Philippines discovered Chinese-built concrete markers and structures on a few small islands in the Mischief Reef, situated in an area claimed by the Philippines. Their response was to destroy the Chinese constructions and arrest 62 Chinese fishermen, with the justification that they were fishing within Philippine waters. In a worst case a major dispute involving six or seven Asian nations will develop, which could cause severe human, economic and environmental damage, as well as disturbing the political and economic relations between the countries. A preferable solution would rather be that the involved parties, form some kind of joint development council, where the nations together could administer navigation, weather reporting, fishing, as well as oil and gas exploration and production. This arrangement would probably be the most favorable in terms of both environmental condition and political stability. Within the framework, eventual financial benefits could be split among the nations according to an agreed formula. Of course this is not an easy task, since some, if not all, of the involved countries are determined not to give up territorial claims and national sovereignty. Here, for example, the donor community could play an important role as mediators in the negotiating process.

The role of the donor in relation to the development of the coastal zone of developing countries

Apart from playing a direct mediating role, Sida and other external organizations, have an important position in the coastal zone development. Firstly they have the possibility to support the strengthening of coordination between states and between governmental organizations and improve the cross-sectoral communication, in order to create a suitable interagency climate which is necessary in such a complex structure as the coastal zone. Sida should then work together with governmental institutions in order to determine the most effective and relevant approaches to solve tensions and reach a sustainable development. Secondly, the donor community is able to support scientific relations between countries and give technical assistance in order to improve the human capital.

In the case when a donor is involved in a specific project in the coastal zone it is essential that the tensions and impacts evolving as an outcome of the project is addressed and considered before a decision to support the activity is taken. Projects that increase social and environmental tensions should preferably not be supported. If we take the example of shrimp-farming in the Mekong River Delta, the donor may provide technical assistance in order to enhance the awareness of mangrove ecosystems among the coastal communities. In the initial phase detailed design, institutional strengthening, national strategy development and pilot testing could be supported in order to secure a sustainable development. The donor should advocate sustainable methods that does not disturb the mangrove eco-system, and diminish the social tensions.

Conclusions

In coastal zones, tensions are common between different interests because of scarcity or depleted quality of resources. The underlying causes for increased pressure on coastal resources in developing countries are said to be population growth, increased economic activity and infrastructural expansion in coastal areas. However, even if the population already is stressing the available resources in many developing countries, much of the resource utilization is done quite ineffectively and a lager output should be possible by implementing new methods and by using land for what it is suitable for. With careful planning, the development could be directed towards sustainable improvements, rather than towards a fast short term economic growth which in the long run enlarge the social and environmental tensions to the extent that they could develop into open conflicts.

Several actors and users are involved in the coastal zone, all having some opinion about future activities. Even if the actors in theory can be divided into a set of clusters, the reality looks somewhat more complicated. For example the authorities of developing countries are commonly not only developers, since they also have a wish to reach environmental sustainability. However, in many cases, the environmental protection is bound be put behind economic development for short term gain. Choosing a satisfying path of development is not an easy task facing the involved parties, having to balance demands for economic development with environmental sustainability, at the same time as fulfilling the needs of the population living and working in coastal areas.

Generally, it is the local communities, although playing an important part in the day to day management of the coastal zone, that have the least influence over the planning of future activities. However, in order to diminish social tensions and obtain valuable local experience and knowledge, a habit of "grassroots" participation should be introduced in the planning process. This is an issue, that preferably could be, and in many cases already is, promoted by the donor community.

When developing policies and strategies regarding the resource utilization in a coastal zone, it is important to have an integrated approach where the impacts (social, economic and environmental) are investigated at the same time as the alternatives are thoroughly considered. However, choosing a satisfying path of development is not an easy task, since many developing countries lack sufficient knowledge about environmental management. Therefore, they require some assistance in for example educating both the authorities and the locals to take an interest in the environment. The development community could be helpful by supporting the coordination and cooperation between different sectors and interests, as well as promoting improved scientific relations within and between countries.

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