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Stream: Governance

HOLDING AND MANAGING RESOURCES IN COMMON: ISSUES OF SCALE IN MEKONG DEVELOPMENT

In the spirit of the present conference, this paper seeks to cross a number of boundaries. To begin with, the regional context of this paper is an international river basin, raising issues of transboundary management of aquatic and terrestial resources. Furthermore, within a complex and highly interdependent macro-ecosystem such as the Mekong Basin, boundaries between narrowly conceived resource sectors need to be broken down. There is also a scale boundary to be transcended, as local, national, regional and global commons are significant in the Mekong Basin. To this end, the paper takes discussion beyond the local common pool resource issues raised in several of the papers presented within this panel. "Scaling up" from the local level brings in national-level issues of property rights and natural resource managment within diverse contexts of political-economic change, most notably in the transitional economies of Indochina. The regional and river basin context of cooperation frameworks also raises issues of resources held and managed in common between several countries.

The paper attempts to address issues of scale in a relational rather than hierarchical way. That is to say, local common property issues are seen as other than just a subset, or microcosm, of common property questions in their national, regional or basin context. Rather, a direct relation between the problems of sharing of resources among countries, on the one hand, and among local users of those resources, on the other, is examined. The paper asserts a necessity to avoid prioritising the international dimension of resource sharing over and above more local issues, but also to recognise the limitations of overly localised approaches to managing resources held in common.

SHARED RESOURCES IN THE MEKONG BASIN

The Mekong Basin covers 795,000 square kilometres in six countries – China, Burma, Lao PDR, Thailand, Cambodia and Vietnam. The Basin's land, water, forest and fish resources are the basis for livelihoods of approximately 60 million people. These resources are shared in a number of senses and at a number of scales.

Resources are shared due to the transboundary character of the Basin. Water used by an upstream country, for example, may become unavailable to a downstream country on a temporary, seasonal or permanent basis. River levels in northern Laos were unusually low for several months while the Manwan Dam in China was filling in 1995. Plans for large scale water diversions such as the Khong-Chi-Mul scheme in northeastern Thailand have significant implications for seasonal water availability in the Mekong Delta in Vietnam. Smaller diversions would take water out of the Basin

altogether. Figure 1 shows some of the proposed intra- and inter-basin water transfers in the Mekong Region. Most of these have a trans-boundary dimension. Even within individual Basin countries, transboundary issues between provinces reflect the shared nature of the resource. For example, lower Delta provinces in Vietnam are concerned about irrigation developments in upper Delta provinces that will affect freshwater availability, saline intrusion and acid sulphate leaching into lower Delta waterways.

While water has been the main subject of international agreements in recognition of the transboundary nature of this common resource (see Okendal's paper in this session), other resources are also mobile and hence shared. Notably, migratory fish constitute a significant proportion of the some 1200 species of ichtyofauna that make the Mekong the third most bio-diverse river system in the world. Fishers in southern Laos, for example, share their resource with fishers living on the shores of Cambodia's Tonle Sap (Great Lake), so that management of key species (for example the endangered *Probarbus jullieni*) only makes sense within a transboundary framework. Moreover, such management requires attention to other factors than how many fish are taken out in different places. If spawning habitats are destroyed by clearing of flooded forests in one country, or if migration routes are blocked by a dam in another, fish are then lost to fishers elsewhere in the system. Managing such a shared resource requires holistic approaches that transcend both national and resource sector boundaries.

Resources in the Mekong Basin are also shared through trade. Rapid market development in the Mekong region has greatly increased the cross-border flows of resource-based commodities. Much of the hydro-power development agenda of the Mekong Basin is predicated on international electricity sales, notably from Laos to Thailand but also from southern China to Thailand, from Cambodia to Thailand and Vietnam, and possibly from Laos to Vietnam. Trade in forest products increased greatly after a logging ban was imposed in Thailand in 1989. Despite a ban on export of aquatic fauna from Lao PDR, there is a significant trade in fish to serve the Thai market, placing further pressure on an increasingly stressed resource.

Resources are shared at a local level through a range of traditional and more recent arrangements for collective management. Communal irrigation schemes share certain common characteristics in parts of all six Mekong countries. Similarly, customary management of forests and forest lands is increasingly recognised within a range of different forest management systems. Local wetlands and some river courses have been subject to communal fisheries management, as indicated in the case study below.

Finally, Mekong Basin resources are shared in the widest sense in that biodiversity values of some parts of the basin are sufficient to characterise them as global common property embodied in the notion of "World Heritage". In particular, tropical forest flora and fauna, and the ichtyofauna of the Basin as referred to above, warrant such a global shared status – this global value implies also a global interest and responsibility in bearing the actual and opportunity costs of conservation.

CONTEXTS OF POLITICAL-ECONOMIC CHANGE WITH A BEARING ON COMMON PROPERTY ARRANGEMENTS

The Mekong Region is undergoing a process of political and economic development with significant implications for property rights, administrative structures and governance of local and national commons. Several key contexts of political-economic change are discussed below.

Resource development agenda

Integration of the mainland Southeast Asian resource economy is closely bound up with a major agenda of infrastructure and natural resource development in areas where physical isolation and geo-political conflict has until recently precluded large scale projects. Numerous mining, forestry and hydro-electric schemes in the Mekong Basin have attracted interest from international investors and multilateral development banks.

Large projects place significant demands on the local resource base, and they usually have implications – notably downstream impacts – for resource users further afield. This immediately raises the question, in isolated areas with poorly defined property rights regimes, of whose resource is being developed, by whom, under whose authority and control and with whose consultation. In areas where customary rights have taken precedence in allocating resources between and within local communities, and where competition and conflict over the resource base has previously not been an issue, the resource development agenda can immediately raise questions of national versus local common property.

Privatisation of resource and infrastructure development

Over the past decade, the transitional economies of Indochina have undergone thoroughgoing reforms of economic mechanisms and property rights regimes. The move from command economy to market economy has been associated with privatisation at various levels. In the common property area, the most immediate part of the privatisation agenda is the move from collective to household agricultural production through the decollectivisation process. However, there are also significant implications at a broader scale. In the Mekong Basin, in particular, there is a move toward privatisation of large scale infrastructure projects that would hitherto have been built using public loan financing. New schemes are now more typically financed under a variant of the build-own-operate-transfer (BOOT) model. This involves negotiated agreements between major international consortia and host governments that effectively involve a lease on a natural resource for an extended period, during which revenues are shared between the returns on equity to the corporate investor and royalties to the host government. Appropriation of local resources from affected communities is at best compensated through a combination of cash and resettlement arrangements. However, the mechanisms for taking into account local common property are still poorly developed in the context of such programs.

For example, standard procedure for a hydro-electric project in Lao PDR is for an international consortium of investors to negotiate a memorandum of understanding (MOU) with a national government, which gives the investor first call on leasing the river, land and forest area in question. If the project is taken further, an environmental assessment will then address the on-site impact on the land and forest area to be flooded, the hydrological implications for downstream flows in the river being dammed and, in the case of a diversion, the receiving system, on fisheries impacts due to impoundment and barrier effects, and so on. Rarely, however, will such an assessment take into account the range of customary and legal property rights regimes governing access to and control over such resources as part of an integrated social and environmental assessment process. As a result, the question of national and local commons becomes conflated in the normal case where there are ill-defined property rights. There is thus a structural tendency toward alienation of local commons in favour of corporate-state usurpation of resource rights and responsibilities.

Policy reform

A further context of political-economic reform in Mekong Basin countries is the wide-ranging process of policy reform in the field of natural resource management. In part this is associated with a range of internationally-driven forestry, fisheries, watershed and land titling projects. More fundamentally, however, the policy reform agenda is related to a restructuring of local, provincial and national level roles in decision making and resource allocation.

In the transitional economies of both Lao PDR and Vietnam there are countervailing trends with respect to centralisation and decentralisation of authority over natural resources. On the one hand, provincial autonomy in forest exploitation and management, for example, has been reduced with the rationalisation of national forestry programming under central government control through a line-ministry approach. On the other, both countries have made significant steps in partial devolution of forest land management at the local level through allocation programs in Vietnam to the household level, and in Lao PDR at the village level. This contrasts with Thailand, where the issue of community rights over forestry land has been bogged down in a long-standing but abortive community forestry bill, whose genesis is closely associated with local challenges to state and corporate interests and community claims of rights to manage, but whose drafting agenda has been usurped by bureaucratic authority.

Moreover, different departments and ministries take quite different approaches within each country. In Lao PDR, for example, the Department of Forestry has established local forest management policy through a series of regulations, decrees and laws that are handed down through provincial and district levels of government. In principle, some of these regulations allow for community input based on existing customary management practice; in fact, the degree of participatory implementation has been quite patchy (see Khamla Phanvilay's paper at this conference). The Department of Livestock and Fisheries, on the other hand, currently takes quite a cautious and hands-off approach to regulation and management of local fisheries. This is further developed in the case study below.

The environment of policy reform extends a number of opportunities for developing co-management arrangements. Co-management of forests and fisheries involves development of modus operandi for joint community and state roles in management, and it also involves multi-scale issues. Just as there are limits to the effectiveness and equity of state control over the local resource base, so there are limitations to community management of natural resources which are shared at a wider level.

INTERNATIONAL COMMON PROPERTY IN THE MEKONG BASIN

The most uncontrovertible international resource in the Mekong Basin is water. While it is possible to calculate the contribution of each riparian country's territory to the total water availability in the Basin, use of water in one country has direct implications for the resource available to downstream countries. The *Agreement for the Sustainable Development of Resources in the Mekong River Basin* that underlies the Mekong River Commission is largely concerned with water sharing. In this sense, water is international common property, with a defined number of users, although the absence of China and Burma from the MRC limits the efficacy of the Agreement. Furthermore, the implications of upstream water development go well beyond

downstream water availability. The integrated nature of a river basin ecosystem means that terrestial resources are also affected. For example, upstream impoundments have implications for salinity intrusion in the Delta area, with potential impacts on land resources. Similarly, terrestial resource exploitation, such as clearance of about half the Basin's forest cover over the past generation, has major impacts on aquatic environments.

While water is international common property both through the physical characteristic of the resource (it flows across borders) and through its internationally tradable value (notably through cross-border hydro-power sales), fish are international common property primarily due to their biophysical (migratory) characteristics. However, they remain primarily a subsistence resource, comprising an estimated 40 to 80 per cent of the animal protein diet of local people (Mekong Secretariat 1992). Fisheries are also the least understood natural resource in the Mekong Basin; while taxonomy is the best documented aspect of Mekong fisheries, there are thought to be a large number of species yet to be identified. Meanwhile, the migrations, spawning and stock trends of individual species are only very partially known and are the subject of large assessment projects in the lower four riparian states. There is also only a very partial understanding of customary fishery management practices and structures, and of how these are changing and adapting in the context of new resource pressures and opportunities.

NATIONAL COMMON PROPERTY IN THE MEKONG BASIN

In the transitional economies of the Mekong Region, i.e. the nominally socialist regimes of Lao PDR and Vietnam, state property is still often characterised as "national common property". This sense of natural resources as belonging to the people in general has a nominally democratic aspect, but it can also be used to deny the category of customary tenure involving locally delimited common property. The move from command to market economy structures involves a revamped system of property rights, with associated tensions between state and community as the "national common property" is either privatised or put under the jurisdiction of state line agencies. However, considerable scope still exists for delimiting and distinguishing between state and community ownership and management rights and responsibilities. Such delimitation is particularly significant in the forestry and fisheries areas. This marks a significant differences between such countries, on the one hand, and Thailand on the other, as the latter has legislated a much more rigid distinction between state and private tenure to the exclusion of common property. The difficulties associated with Thailand's proposed community forestry legislation is indicative of this situation.

THE LOCAL MEKONG COMMONS

Local commons continue to play a significant role in the livelihoods of the mainly rural agricultural and fishing communities that are home to most of the Mekong Basin's people. Timber for house construction, non-timber forest products and protective values of stream watershed forest involve well-documented customary rules, regulations, prohibitions and sanctions in northern Thailand, the Central Highlands of Vietnam, southern Yunnan Province and much of rural Lao PDR. *Muang faai* (weir and distribution channel) irrigation schemes similarly involve local management of a resource held in common by a delimited set of users employing non-private and non-state property rights and management mechanisms to effect mobilisation and allocation

of the resource in question. Grazing land is usually also held in common but rarely recognised by formal titling schemes.

Fisheries management is less well documented, and partly as a result policy is sometimes predicated on the notion of fish as an open-access resource. Nevertheless, natural closed or semi-closed wetland fisheries in the Mekong Basin have established rules based on community management. Futhermore, management of more open waterways also involves recognition of the local common property nature of this resource in the form of prohibitions on use of certain types of destructive fishing equipment such as explosives, poisons, and fine-meshed nets. More complex and controversial is the establishment of local conservation zones in the Mekong mainstream to "protect" a resource that is supra-local in its nature. In some cases, these zones have been established in the name of community management by heavy-handed decree from above.

Local commons in the countries of the Mekong Basin tend to have remained relatively uncontroversial, despite their ambiguous tenure status before the law, until wider claims have been placed on the resource in question. As indicated above, the rapid pace of infrastructure and resource development is now making numerous such claims. In the case of private property, appropriation of the local resource base in the name of wider development is usually dealt with by compensation in cash or kind. In the case of common property, however, compensation and mitigation methodologies are very weakly developed even where the impact on local forests, small irrigation facilities, grazing land or fisheries is quite direct. Where such impacts are less direct, particularly where they are spatially distant and cross jurisdictional boundaries, and even more so when they cross resource sector boundaries as discussed above, common property becomes yet more vulnerable to externalities from large project development. Local commons are thus drawn into national and international arenas of resource sharing, breaking down scale boundaries. Within the Mekong Basin, moreover, it is only in Thailand that institutions of civil society are sufficiently developed to allow for collective counter-claims on behalf of those dispossessed of common property, enabling local challenges to be heard in national and sometimes international arenas.

The final section of this paper illustrates some of the above themes with reference to fisheries in Champassak province, illustrating the need for a multi-scalar approach to dealing with a resource held and managed in common.

A CASE STUDY OF MULTI-SCALE COMMON PROPERTY IN THE MEKONG BASIN: CHAMPASSAK FISHERIES

The fisheries of southern Laos are among the most diverse and important of the Mekong Basin. This is reflected not just in the biodiversity, particularly around the Khone Falls area which serves as both a bio-geographic divide for Mekong ichtyofauna and also as an important site for migration studies. It is also reflected in the diversity of fisheries environments, or what can be termed aqua-ecosystems in their human use context. The Mekong mainstream, tributaries, backswamps, streams, inundated ricefields and aquaculture ponds all present different biological niches and management challenges at different levels.

The poster presentation by Prachit Noraseng at this panel describes the management of one specific aqua-ecosystem with characteristics most familiar to those interested in common property issues. However, this management system needs also to be seen

within its wider context. The district of Sanasomboun in Champassak Province (Figure 2) borders a stretch of the Mekong River; it contains the lower 50 km of the Sedone River before its confluence with the Mekong at Pakse; its 85 villages contain a number of backswamps seasonally linked to the Sedone tributary; streams provide different types of fishing opportunities in wet and dry seasons; and the ricefields on which most people living in Sanasomboun depend for their primary livelihoods also are a source of fish and other aquatic organisms. The property regimes and the common property elements of them are described briefly for each of these.

Ricefield fisheries are normally household based, and would therefore be seen as private or individual property. However, the vulnerability of ricefield fisheries to pesticides and other environmental influences associated with intensification of cropping systems means that there is a potential need for cooperative arrangements to deal with local externality issues. Moreover, frogs and toads in most villages are common property as they can be caught in neighbours' ricefields, although there are sanctions on people coming from outside the local area to collect such organisms and on excessive marketing of amphibians, particularly as they have declined with the simple technological change from kerosene lamps to battery torches.

Smaller streams are subject to seasonal tenure rules. During the wet season, fish are caught by local villagers along the length of the stream course, using a variety of *ton* traps. As the streams dry out during the dry season, barrier traps are set up to hold fish back in deeper pools that become isolated from one another as the stream dries out in February or March. Each pool is held in common by several households belonging to a descent group (*takun*), and specific rules govern when fish are caught, how they are to be divided and who can be invited to join the fishing out of the pool. By April, only eels survive deep in the mud, and these are also the common property of the descent group.

Floodplain backswamps are associated with a range of tenure rules based around community-scale common property arrangements. In two of the villages with backswamps seasonally linked to the Sedone River, these arrangements focus around the annual tradition of *phaa paa*, or "taking the fish", which involves a collective fishing-out of the catfish, snakeheads and smaller fish. The fish that are caught have spawned from mature fish that enter the swamp early during the wet season as water spills over from the Sedone River. Rules vary from one swamp to another, however. In Khamyaad village, the Bungkhaa backswamp is open to fishers from surrounding villages on the day of the *phaa paa*. However, smaller pools dug out around the edge of the swamp are household property. Both the open nature of the *phaa paa* here, and the seemingly private aspect of individual enclosures, are based on rules set by a clearly defined village level management system and are associated with propitiation of resident spirits. There are similarities between this system and that governing a backswamp at Solonoi, downstream on the Sedone. However, the fishing out of this swamp is strictly limited to residents of the one village, and no individual enclosures are permitted. Recent management changes in the Khamyaad and Solonoi systems catalysed by release of fingerlings are detailed in the poster presentation by Prachit Noraseng at this conference.

The Sedone tributary is not subject to exclusionary practices as are the smaller fisheries environments. However, prohibitions on more destructive practices such as use of trawl nets, fine mesh nets, poisons or explosives are governed by community sanction

in the absence of comprehensive state enforcement. The Sedone tributary in Sanasomboun contains Lao PDR's earliest hydro-power project, the Selabam Dam. While this 3 MW scheme is very small compared with the many larger schemes slated for most of the country's major tributaries, has a limited headpond, and has a parallel natural stepped fall that allows for some fish migration, there are indications that fish composition above and below the dam are somewhat different. The management and common property implications of this feature are the sacrifice of common property at one scale for resource mobilisation at another, and this is likely to be much more significant with the larger schemes. On the other hand, these larger schemes also involve new reservoir fisheries, but with poorly defined tenure.

Mekong fisheries in Sanasomboun and elsewhere have not been subject to local common property rules, for good reason: the fish are highly migratory. However, in 1993 villages along the Mekong were instructed by District authorities to set up fishing conservation zones; in the island village of Don Kho, for example, a 50 metre strip on the eastern side of the island was declared a nominal no-fishing area. More extreme was the establishment of a deep pool conservation zone south of the island at Vern Khong, in line with a controversial project to establish these "*wang paa*" (literally, "fish palaces") elsewhere in southern Laos. While these zones had come from decrees emanating from the Department of Forestry in its role as host to the Wildlife and Fisheries Division, the Department of Livestock and Fisheries has been much less enthusiastic about such zones, seeing them as based on little scientific evidence regarding conservation values. Some local people describe the ban on fishing at Vern Khong as "cutting off their hands and feet" since they circumscribe important fishing grounds, and since 1997 have ceased to respect the ban. There is a strong awareness of the international nature of the resource, with local fishers on the Mekong in southern Lao PDR seeing little point in refraining from using a resource that is known to be extracted destructively across the border in Cambodia. The international dimension is also relevant to the increase in extraction of key species for sale across the border to Thailand.

Different fisheries within a single localised area of the Mekong thus involve sharing and joint management arrangements at a number of levels and scales. Similarly, these fisheries are subject to pressures at a number of levels, involving both endogenous and exogenous influences. Overfishing is due both to endogenous factors such as population growth and adoption of new technologies, notably gillnets. However, exogenous influences such as domestic and international markets also play a role. Likewise, environmental impacts on the fishery range from localised problems associated with pesticide use, to large scale modifications due to hydropower development at the Basin level. Dealing with these influences requires attention to the scale at which they are manifest.

CONCLUSION

When we speak of common pool resources, it is often assumed that we are dealing mainly within local arenas. In this paper, I have tried to transcend scale boundaries within the Mekong Basin to raise issues of common property at other levels. The international resource sharing inherent in the developmental agenda of hydropower and other infrastructure development necessitates institutional means for international Basin management, but it also requires attention to the common property arrangements that are impacted at other levels.

The ambiguity and indeterminate nature of resource tenure with respect to many resources that form the basis for subsistence livelihoods in the Mekong Basin countries is exacerbated by the rapid pace of political-economic change. It can be expected that, without close attention to common property arrangements at all levels, the scope for competition and conflict among the many stakeholders in the region's land, forest, fish and water resources can only be expected to intensify.

NB: Common pool - ambiguity - conflict - resolution in privatising? What sort of rules? Whose commons? Whose rules?

Paper to be presented at

Crossing Boundaries

SEVENTH COMMON PROPERTY CONFERENCE OF THE

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Holding and managing resources in common: issues of scale in Mekong development

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ABSTRACT

This paper investigates common-pool resource tenure and management issues in the Mekong Basin. Tenure is particularly fluid in this region due to rapid political-economic change and an accelerated infrastructure and resource development agenda. The paper looks at tenure questions with regard to resources managed in common at a number of levels, from basin-wide to national and local scales, and within a number of resource sectors, including water, forests, fisheries and land.

The paper begins with a discussion of several key political-economic contexts of change that form a backdrop to management of common-pool resources in the region. These include:

- privatisation of resource and infrastructure development,

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- decollectivisation of resources previously held and managed in common under socialist regimes in four of the six countries within the Basin
- the agenda of thoroughgoing policy reform with regard to resource tenure and management, specifically with respect to devolved resource management rights and responsibilities from bureaucratic to community levels
- the large scale resource development agenda that has helped to bring common property into the policy arena

Resources managed in common are then considered at a range of scales. At the regional level, issues of common management between riparian states are discussed with reference to water and fisheries. At the national level, a comparison is made between policies of riparian states with regard to co-management of forest resources. At the local level, the paper discusses management issues within a single country, Lao PDR, drawing on case studies of local experience in fisheries and forest tenure and management. The paper ties in closely with presentations in the same panel by Prachit Noraseng and Khamla Phanvilay, each of which considers issues of local and national management of common pool resources within the fisheries and forest sectors respectively.