CCIJ News

March 2008 /No. 56

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Main Features

Merits of the Commons System for Small Users: Assurance of Equal Access and Insurance Against Disasters

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1. Introduction

This paper discusses commons, that is, such natural resources as forests, pastures, fishing grounds, irrigation waters, and sometimes even arable land that are not privately held by individual users. The commons debate started forty years ago. In 1968, Garett Hardin argued commons to be anarchic, disordered and unduly exploitative use (*Science*, No.162).

Thus, he asserted that 'tragic' consequences are inevitable if these resources continue as commons. He persuasively recommended that some rule or order must

be introduced to allow for the rational use of the resources. The simplest and clearest rule was considered to be privatization. Thus, according to Hardin, commons are best privatized so as to enable rational and sustainable use.

Since the publication of this paper in *Science*, his thesis has been widely accepted by policy makers and interpreted as a strong recommendation for the privatization of commons. But, they take it one step further. The central dogma of natural resource policies was formulated on the basis that private property regime can not only promote rational and sustainable resource use, but also enable the most productive use of the resource, whereas any commons-related, namely, communal, collective, or cooperative aspects inevitably hinder it.

This claim clearly overstates Hardin's convincing claim that 'some rule must be introduced wherever there is no rule.' Indeed, as is shown by a large body of case studies, which have been conducted in response to Hardin's paper, many commons systems are strictly governed by local communities, and their use is regulated by illuminatingly elaborate rules. Commons users (individually or collectively) use the resource in sustainable and secure ways. These facts are well illustrated by such works as *Village Republics* (by Robert Wade, 1987) and *Governing the Commons* (by Elinor Ostrom, 1990), to name but few.

When policy makers consider breaking down and privatizing such systems, the trade off must be taken seriously. On one hand, it cannot be doubted that commons, or more broadly, any commons-related aspect can only enable sustainable and secure use, but hinders the most productive use of the resource. But at this expense, a commons system can support each user's small but independent agricultural life. In the remainder of this paper, I will illustrate how commons contributes to each user's well-being.

The main purpose of the paper is to elucidate why local people tend to adhere to the maintenance of the commons. In particular, I focus on two salient merits of the commons institutions. By doing so, we will understand why locals often need the commons and resist government's privatization program. This debate is suggestive when we consider what policy is truly for people living small lives.

2. Each User is Assured Equal Access to the Commons

One of the most salient aspects of the commons is users' striving for equal use. In many cases we can observe that this attitude results in elaborate rules over the commons use. Such rules are meant to treat every user equally, as well as, to enable rational use by preventing excess fragmentation of resource units. In this section we will look at some representative rules to illustrate this point.

When irrigation water is held in common, the notion of equality of its use is not simple. There can be unequal allocation of the same amount of water. The timing of allocation also matters. Thus, in irrigation commons, users have to negotiate both the amount (and time slots for allocation) and the timing. That is, users are not assured equal access to water unless they are granted equal amounts in equal timing. This would seem difficult. How this difficulty is overcome is the key to understanding the elaborateness of irrigation commons.

The Pakistani community-based irrigation system, '*warabandi*,' justly represents how users make rules that meet both claims of amount and timing. Each user is given a particular number in the order of allocation. Thus, '*warabandi*' means 'fixed order.' Users are allocated equal amount (per paddy area) of water in turn according to their order. But how is the timing problem settled? It is done by limiting the span of one cycle within one or one and a half week (10.5 days). For instance, one user is allotted 10 PM on Wednesday to 5 AM on Thursday, every week. This 7-hour slot corresponds to the user's paddy area. By rotating, they satisfy both quantitative and timing equality.

However, clinging to this principle can excessively fragment each user's time slot, thereby hindering the rational use of the water. In this regard, a traditional rule found in Nepal is of interest. It is called in the local language 'winter from above, summer from below.' That is, commons users reverse the order of allocation in summer and winter. Thus, whereas there can be some extent of timing inequality when seen only in one season, this is almost cancelled out when seen over the total year. This is an illustrative case of how users prevent undue fragmentation while avoiding inequality.

The Nepali case of irrigation management can be viewed as inter-temporal canceling out, whereby equality is maintained while fragmentation is lowered. An extended form of this idea is represented as the rotation of assignment, which is seen in fishery grounds and communal lands.

Let us take fishery grounds first. Fishery grounds are generally not homogeneous, but heterogeneous. There are both 'hot' spots and 'cold' spots (this expression is borrowed from Ostrom et al). When some communities of fishermen collectively holds right to a fishing ground and decides to assign each member a particular spot on an exclusive basis, a difficult problem arises regarding how to assure every member's equal rights. More precisely, whom to assign the access rights over the 'hot' spot and the 'cold' spot is problematic.

Anthropological studies have found many elaborate traditional rules that settle this problem. One of the most remarkable and typical one is found in South Asia, namely the '*padu* system.' This is a kind of rotational assignment. The whole ground is roughly divided into the number of fisherman and each fisherman is assigned a spot by a lottery. Then the fishermen each move to the next spot each day.

The underlying principle is the same as the aforementioned irrigation rule, 'winter from above, summer from below.' That is, even the assignment on a particular point in time may be unequal, this inequality is cancelled out throughout the cycle. Achieving equality at every point of time would entail excessive cost of fragmentation and thereby hinder the rational use of the ground. Rather, by rotating, each fisherman is assured the same opportunity to fish. No one is allowed to monopolize the 'hot' spot whereas no one has to suffer from the 'cold spot' either.

Communal land is sometimes managed on a similar principle. In Tokugawa Era Japan (from 17th to mid 19th century), village communities collectively governed the village land. Villagers individually cultivated the land, but did not have private property rights. That is, the villagers had the de facto right to use *some* piece of land in proportion to their share-holding, rather than have the right over any *specific* plot.

In this setting, the 'hot and cold' problem arises with further complexity than in the

case of fishery commons. Village land is 'not a sheet of paper,' but contains several conditions, as historian Paul Vinogradoff rightly expressed. Not only the fertility of the soil, but also the convenience of approach, irrigation and possibly even climate may vary. No one has the privilege to exclusively use the good place, and conversely, no one has responsibility to use bad place. Everyone must be assured equal opportunity to the extent each has a share in the village land. This is a far more complicated situation than fishery commons.

The most straightforward method to deal with this complexity is to classify and categorize the whole village land and parcel out each division of land. Thus, by allocating a plot from each division to each villager, equal opportunity can be clearly assured. Indeed, it is the typical way to allocate common land to individual shareholders. A contemporary example is found in post-collective villages in China and Vietnam.

Allocation by classification and category shares a spirit with '*warabandi*' mentioned above. In particular, just like '*warabandi*,' which enables villagers to almost equalize the timing of water delivery (no one has to suffer from late water delivery for, say, a month), such land allocation explained above assures each villager equal opportunity of land use. Everyone can enjoy a fertile place, and at the same time everyone must cope with bad conditions, in proportion to his share-holding.

Of course, it entails a problem. Classifying and categorizing village land might lead to excessive fragmentation. Each villager might be assigned several minute plots that are scattered over the village domain and intermingled with other villager's plots. Villagers pay this cost to be assured equal opportunity.

There are a few cases, however, where the fragmentation problem has been prevented by inter-temporal arrangements like the 'winter from above, summer from below' rule in Nepal. A notable example can be drawn from Modern Japan (the latter half of 19th century to the beginning of 20th century). Namely, '*kurumaji*' (a cyclical plot assignment) was observed in some areas in Niigata prefecture. This is similar to the '*padu* system' in South Asia. How widely such an inter-temporal type of equality assurance existed is not clear now, but it may have been prevailing as suggested by ethnologist Kunio Yanagida, who mentioned '*kurumaji*' in his lecture

at Waseda University.

Thus far, we observed some typical rules that regulate the use of the commons or common land. We have illustrated that in the commons setting; even powerful members cannot be granted the exclusive right to use the most favored part of the commons. Every user, without respect of his/her ability or power is assured equal access rights.

In particular, the most favored part of the commons (namely, water at the best timing, hot spots in the fishery grounds, or the most fertile plot of village land) is either 1) fragmented so that everyone can use it simultaneously, or 2) used by taking turns so that every one can use it at some point in time within a certain span. Such rules, of course, must impose on users to bear some degree of inconvenience. This is, for the commons users, a fair price to pay for the assurance and enhancement of the small users' livelihood.

3. Users are Mutually Insured Against Natural Disasters via the Commons

Next, we will observe how commons users are mutually insured against natural disasters, including most notably drought and flood, through the rearrangement of use rights over the commons. By mutual insurance, I mean participatory and reciprocal insurance scheme on the basis that participants face the same source of risk, that is, natural disaster. In what follows, I will illustrate that commons can function as mutual insurance. It is done by rearranging use rights assignment in case such a disaster takes place.

Let us take village-level periodical land reallocation, '*warichi*.' This was widely conducted over Tokugawa Japan, especially in regions where floods often occurred. Farmers had, as mentioned above, equal use rights over the village land, but equal assignments tended to collapse because of changes in natural conditions. Flood was the most influential of such change. Thus villagers decided to reallocate periodically in order to adjust to changes in the environment.

Of course, from the standpoint of individual users' land use planning, the cultivated

land must be fixed. Periodical reallocation would discourage investment and encourage over-exploitation. But at the expense of such demerits, villagers chose the reallocation rule to insure against flood.

Also in the Tokugawa Era, villages in some cases held a mountain or an island as the place to save such member who faced unforeseeable troubles and needed supplemental land for survival. Every villager shared this risk so that they decided not to change such commons into someone's property but to hold on to such land as insurance commons.

Such insurance via resource assignment can work not only on a commons basis, but also on a private property regime. Let us take '*bethma*' as an interesting example.

'*Bethma*' is an institution seen in tank-irrigation villages in the dry zone of Sri Lanka, originating from British colonial days. Sri Lankan villages, in the dry zone, typically have one tank (small dam) at the center of its domain and the water inside the tank is regarded as commons, over which every villager holds equal right of use, whereas the land is regularly held on a private basis.

'*Bethma*' is carried out on an irregular basis, though it is not rare. For example, some years the rainfall amount is too little to meet the demands of every villager's field. Then, only those paddy fields near the tank could be irrigated. In such cases, '*bethma*' works. The paddy fields near the tank are temporarily changed into the common land, and divided out among all villagers. It can be said that the principle of the commons with respect to the irrigation water is so strong that the principle of private property in landholding loses its validity.

As '*bethma*' well illustrates, shareholders of water source tend to collectively and carefully manage the source, especially when it is scarce. The underlying principle in such case is that every user must be assured equal right, and in case of a shortage, they rearrange the regular rule and carry out occasional devises. The latter works as an insurance against shocks. What is important is that such insurance is embedded in the rule of assignment over the commons.

4. Concluding Remarks

Now it is clear that, commons are managed with highly elaborate order. We have observed that two major principles, 1) assurance of equal use for each and 2) insurance against natural disasters underlie the commons institutions. Thus, the commons system benefits small users and contributes to small but secure agricultural life.

Of course, such a scheme entails costs. Striving to assure equal opportunity necessitates the parceling out of resource units or turn-taking, and any devises meant for insurance also hampers the most productive use of the resources. In this sense, it cannot be doubted that the 'commons is a source of inefficiency.' Scholars and policy makers tend to focus on the demerit aspect of the commons and often, exclusively on this aspect.

In doing so, the role of the commons for small users is undermined and productivity is the criterion to be considered. Moreover, such a policy is often implemented under the flag of 'resource conservation' or 'rational resource management.' When it is done, Hardin's original thesis is no longer taken seriously, but only its strong recommendation is coercively applied. Underlying such policy would be nothing other than narrowly economic recognition that commons must be inefficient and its privatization would benefit all.

Now it is clear that such 'central dogma' must be cast strong doubt from the standpoint of small users. They have a good reason to hold on commons. A deeper understanding of the merits of commons institutions and the reason why local small users adhere to the commons would be indispensable.

News Items

CCIJ-Granted Works Presented

The CCIJ Award consists of Scholarships to research projects and Research Awards recognizing the excellent works in the fields of citizen's life and Co-operation. Out of 23 applications for Scholarship, 5 research projects were selected for grants. However amongst 43 nominated works for the Research Award, no scholarship was awarded. On March 1st, the results of the scholarship research for 2007 were presented and commented on by the Award Selection Committee members.

The research projects were as follows:

1) Typology of Civic Engagement policy in Formulating Community Welfare Plans, Mr. K. Iwamitsu (St. Catherine University)
2) Interaction Between Co-operative Alliance and Sustainable Community Building: A Case Study of the Alliance Between Pal System Consumer Co-op Federation and JA Sasakami, Ms. C. Sawa (University of Tokyo)
3) Social Change Initiatives Through Civic Fund Raising, Mr. H. Yoneyama (Fujitsu Research Institute)
4) Social System for Recycling to be Created by Consumer Co-op and Suppliers, Mr. K. Akimoto (Nagoya Gakuin University)
5) Challenges of Sustainable Community Building by Civic Engagement: a Case of Community Environment Plans, Ms. M. Kanie (Kyoto University)

Symposium on Co-operatives and the Elderly

On March 8th, the Association of Co-operative Financial Institutions held its 5th annual symposium in Tokyo. The main theme was "How Co-operative Financial Institutions Conduct Businesses for Elderly People." The symposium was organized around a guest lecture followed by a panel discussion. Representatives from CFIs: Osaka Shinkin Bank, Seiwa SME Credit Bank, Labor Bank Central and Tokyo-Musashi Agricultural Co-ops exchanged their views and roles in an aged society.