INEQUALITY AND EQUITY IN IRRIGATION COMMUNITIES

Paper Presented at the Annual Meeting
International Association for the Study of Common Property
Washington D.C. September 1992

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24 February 1993

Professor Bonnie McCay
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Dear Bonnie

Thank you for your invitation to submit my Washington IASCP paper for your volume. I have re-read the paper, and now realize what condition I was in last summer and fall. I am relieved of the chairmanship of my department at the end of this spring, and it has taken a terrible toll on my thinking and writing. It shows in this paper.

Were you to be interested in including my paper I would want at a minimum to add/improve/change the following:
1. Section 1, Inequality, would be expanded to discuss differences, inequalities, stratification, and equity as concepts. They are all diffferent, tho often intimately related.

2. Section 2 would be on inequality, stratification, and equity (IS&E) inside the Irrigation Community. I would want to at least illustrate these points with examples from cases around the world. I would also raise the question of how IS&E relates to sustainability of the resource, survival of the CPMR, and productivity. There may not be much to say on these topics, but on the other hand there may.

3. Section 3 would expand on a brief mention of buffering on page 7. Here I would discuss how the relatively egalitarian and unstratified Irrigation Community connects to and relates to the more stratified state that surrounds it. Here again I would at least illustrate the points with examples from case studies.

I will be doing the thinking anyway. The dissertation of a student of mine is a comparative study of the common property features of a number of Irrigation Communities, and the ideas involved in my 1992 paper will be important for him. The revisions should not take long - the analysis is largely done and all it needs is the writing.

Let me know what you think.

On another subject: I am organizing the 1994 SEA program,

and Property will be the theme. I intend that one session will deal with Common Property regimes, and I want to stir your interest at least a little bit. Would you at least not reject it out of hand for now?

Warm regards,

Bob

Robert C. Hunt

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Paper for IASCP.92
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TITLE: Inequality and Equity in Irrigation Communities

PURPOSE: This paper will discuss concepts, explore the relationships of concepts, and illustrate those relationships with empirical examples.

0. Introduction

We are faced with an interesting problem. On the one hand, most of us are favor equality over inequality. Most of us believe, and some of us claim, that Common Property Management Regimes achieve relatively great degrees of equality among the members, and furthermore need that equality to "work". On the other hand, we live and work in states, and social stratification is a defining characteristic of the state. The state always contains many dimensions on which inequality is institutionalized.

The problem this poses is an interesting one. The problem is how the "equality" of the CP regime (if it exists) articulates with the "inequality" of the surrounding social structure.

In this paper I will discuss some concepts from social organization that are needed for thinking about these matters. I will concentrate the discussion on Irrigation Communities, and will illustrate the points to be made with examples from a selection of cases drawn from my own field work, and from the literature.

1. Inequality

.1. General Considerations

Inequality is the state or condition of one social entity (usually persons) not having equal access to some valued thing, such as land, money, education, medical knowledge, etc. The judgement of "equal" is rarely a ratio or interval scale. Rather, it is treated as an ordinal scale, with a small number of scale steps, and a large number of tied scores within each step. The construction of these steps, and the criteria for placing an entity in one of these steps, are located in the local culture and behavior systems, and have to be worked out in detail in the course of field work. They are almost never worked out in detail by ethnographers, who usually take local judgements as the analytic given. We are told that given lineage is senior, or that some person is the chief, or that household X is wealthier than household Y. It is not only possible but highly desirable to report the procedures by which we learn what the native judgement of difference is (questions of sampling, and of inter-observer agreement, are critical here, and notable for their rarity.) It is equally possible and desirable to investigate how the natives arrive at their judgements.

However weak and imprecise our ethnographic knowledge of these procedures is, it is clearly the case that equal-unequal judgements can be made for many different dimensions of value, including land, money income, education, possessions, the ranking of parents, spouse, children, spouse's family, office, ability to drink alcohol, ability to fight, farming ability, etc.

One of the defining characteristics of the state is that it contains a small number of vertically stratified classes, and these classes are always defined in terms of a relatively small number of these valued things. Furthermore these classes recruit largely by descent.

It must be the case that no society can successfully achieve perfect coherence of ranking among all valued things. The ranking on some of these dimensions is bound to cross-cut the ranking on the fundamental class dimension. In other words, some members of a lower-ranked class are certain to be better hunters, or fighters, or managers of an irrigation system, than most (or all) members of a higher ranked class.

When the societies we are discussing are state-level ones, it is crucial that we remember that all states are stratified, those strata are based on a relatively small number of dimensions, and that there are many additional dimensions that can be used to rank the social entities. Inequality might be used to refer only to class differences, or it might be used to refer to <u>any</u> kind of difference that the natives use.

.2. Inequality and the Irrigation Community

Given the previous, we now want to ask about that common property management regime I have called the Irrigation Community. A corporate group that owns and operates an irrigation facility, with internal jurality, the Irrigation Community is commonly found in all kinds of states. These states by definition are stratified. What is the relationship of the

two? There is a general tendency for the Irrigation Community to contain a limited range of the stratified hierarchy of the nation. The members are almost always land-owners, for example, and so the vast numbers of landless workers, proletarians and others are immediately exempt. Most of the landless will be lower on the social class scale than the landowner.

There can be considerable differences among the land-owners. In Cuicatlan in 1964 there were land-owners who held less than 1/2 ha., and others who held 300 hectares. There was more social class distance between these two owners than there was between the small-owner and the landless. Three general pressures since 1945 have worked to reduce the social class distance between members of irrigation communities; land reform, forces of population, and market participation. Land reform always puts a cap on the amount of land that can legally be owned and operated, and even if the program is not perfectly carried out, it almost everywhere puts pressure on the larger land-holdings. The consequence for social stratification within the Irrigation Community is to reduce the social distance between the members.

Population pressure seems to reduce the smaller holdings by generating a number of people with too-small land-holdings. These smaller holdings tend to be amalgamated into a viable holding, and those who lose out become landless rural laborers, or migrate to other areas, often urban or industrial ones. Market participation, I suggest, encourages a homogenization of farm-size in accord with capital and energy efficiency. The

summed effects of these pressures, I suggest, has been a tendency to remove the extremes of the size distribution from the roster of members of Irrigation Communities.

Even if the Irrigation Community has less differentiation than even the rural society it is located in, it is still internally stratified by the criteria of the social environment. Two questions then arise: 1) what is the effect of this internal stratification on operation of the Common Property Management Regime, and 2) how does the group manage relations with the more stratified environment?

The effects of internal stratification we might predict include unequal capture of benefits by the powerful, which might be accomplished by either rules which favor the powerful, or by theft and free-riding with relative impunity. The major benefits of an irrigation system are water delivered to the fields, and the right to participate in making rules and electing officers. The major duties include providing labor for maintenance, providing labor for executive tasks, and providing other assets for the reproduction of the group (cash, tools, traction devices, materials).

In the vast majority of irrigation systems so far studied, the rule is that water is to be delivered in proportion to the amount of land owned. This is clearly an unequal distribution of water if different amounts of land are owned, which is almost always the case, even if land reform has taken place. Irrigation communities focus their energies not on this dimension of

inequality, but rather on the operation of the rule of proportionality. Trouble will break out if a member gets less than they are supposed to get according to the rule for the reason that somebody else is getting more than they are supposed to. Such excess water can be the result of outright theft, or it can be the result of influencing or ordering the distribution staff to provide more than the legal amount (legal because the irrigation community has internal jurality.) In either case internal stratification in the group can have this result.

We tend to use "capture of benefits" to describe a distribution pattern which deviates from some ideal rule. It is clearly the case in most irrigation communities that some members receive more water than other members. From the internal or irrigation community point of view, this does not constitute capture of benefits. Unequal distribution of water is built into the system. Rather, capture of benefits occurs when someone (usually the relatively powerful) takes more than their share.

Equity has two dictionary meanings, the one being "fairness", the other relating to ownership rights in property. This unequal distribution of water is equitable in both senses. It is fair, because it is by the local rules. And it is receipt of water that is owned. It is when a member takes more than their share of benefits, or provides less than their share of resources in the context of duties, that the <u>local</u> reaction is likely to be one of inequitable behavior. It is very important for the analyst to keep firmly in mind the difference between

local judgements of equity, and those imposed from the outside. They are not necessarily the same, and do not necessarily lead to the same conclusions.

Does the Irrigation Community manage to operate with equity, and if so how? I can only report vague impressions. It would be possible to measure the distribution of benefits in such a group, but to my knowledge no outsider has done so systematically over a sufficient time span. My impression is that many of these irrigation communities do operate with equity.

The reasons for this probably include the principle that a vote for rules and officers is frequently based not on the unequal assets (such as land, or water rights), but rather on the principle of membership. Each member has one vote, regardless of other assets owned. This makes all members formally equal when it comes to one of the main benefits of membership. This principle could well counter pressure for inquitable distribution of benefits.

There is another aspect of the irrigation community which needs attention in this context. If, as I suggest is the case, the irrigation community is buffered against the stratification in the environment, it must still interact with that environment. The external relations can be jural, political, economic, ritual, and any combination of them. Given that the state, and other entities in the state, can be predatory, how does the Irrigation Community defend itself, or act in a predatory way itself? One way is for the irrigation community to be powerful itself, with

many members, united activity, and a willingness to weigh in on issues of importance. Another way, frequently found, is for the irrigation community to use those members (or friends) with high standing in the outside as interface institutions, or brokers, with outside forces. There is evidence for this from Egypt (Fayum), Taiwan, Mexico before 1970, and Japan.

In Taiwan, when the land reform was instituted the rural gentry lost a good deal of power when their land was exchanged away. Both the broker functions, and the internal conflict resolution functions, were weakened. Presumably these functions have been taken over by essentially political roles, connected to the Party and government.

All irrigation systems must have ways of dealing with relative shortage of water, which is a natural feature of hydrological systems. Some systems have junior and senior water rights, Valencia being the most prominent example. In this case spreading the pain of a drought in equitable in the fairness sense, but it is unequal, in that some members suffer more than others. There are other systems for dealing with drought that are both equal and equitable. In Sri Lanka tank villages, and in the Zanjeras in the Philippines, under shortage conditions the amount of land that is watered is reduced, but due to the layout of the field everybody suffers a proportional reduction.

A student in my program, Chien-ru Wang, has pointed out that it is almost always the case that members of a corporate group managing common property own only some of the relevant assets in

common. Thus, for example, in most irrigation systems the group owns the water system, and may own the water rights. But the land, the traction animals, the tools, and the crop outputs are owned in severalty by the member units of the group. He notes that in the Chinese Communes all the relevant assets were owned in common. This difference should have profound implications for many aspects of Common Property, including incentives for work, quality of operation, conservation of assets, and the formation of capital. What effect this has on inequality within the group, or of relations to other entities, has yet to be analysed.

3. Conclusion

There is much work to be done on this topic. We have no detailed informtion on the distribution of water, on the performance of duties, on obeying the rules, and on the applying of sanctions for breach of the rules. My suggestions on these matters are impressions, and therefore not worth very much. If we wish to pronounce on inequality we must encourage the collection of such empirical evidence. It seems clear to me that equity can be accomplished in the context of inequality, and that it probably does so often with canal irrigation.

I suggest that the principle of voting per member, not per share of asset is an extremely important internal buffer against the effects of unequal assets and power among the members. I suggest also that the members accept the principle of unequality, but that they do not accept the principle of inequity.