Valley Gwembe Tonga

Synopsis on Resource: Common Pool and Public Good

Arable land in this case, following Ostrom (2005: 24), is both a common pool resource and a public good. Bush land used for shifting cultivation is a common pool resource. Rights to this land belong to whoever clears it. There are virtually no rules governing access, except acceptance into a community that claims the bush land as part of its territory. Gaining acceptance is a simple matter of asking permission or just establishing residence in a place. River land is a common pool resource. River land, however, straddles a boundary between common pool resource and private good. Everyone should have access to river land. But river land is finite. There is only so much to go around. Therefore, some lineage members, where river land is scarce, have not inherited river land through their kin nor received any river lands through gift. Thus, in practice, people are excluded from river land, though people's ability to exclude others is not institutionalized. In fact, it is against custom to sell any land, especially river land. Institutionalized rules and practices for excluding people from river land do not exist. As noted below, many rules guide who can access river land, under what conditions they can access the land, and who, if anyone, can take river land from a person currently cultivating the land.

Location:

Africa, Territory near 17 degrees N; 27 degrees E

Sources:

Colson, E., 1960. Social Organization of the Gwembe Tonga. Manchester University Press, Manchester, UK.

Scudder, T., 1962. The Ecology of the Gwembe Tonga. Manchester University Press, Manchester, UK.

Description Context:

Field coverage 1956-57

Ethnographic observation took place for about one year. Elizabeth Colson and Thayer Scudder worked with several 'neighborhoods' mainly in what was then known as the middle river region. The Gwembe neighborhoods studied at this time were in the flood zone of a major dam project along the Zambezi River. The ethnographic description took place in the context of looming resettlement.

Ethnographic description focused on social organization (Colson 1960) and the ecology of agricultural production (Scudder 1962).

The word Tonga refers to an ethnic grouping. Not all people identified as Tonga are the same. This is a general ethnographic description that focused on several neighborhoods in the "middle river region".

The social life of the people in the Gwembe Valley was completely disrupted by forced resettlement after 1957. At the time of fieldwork there was a lot of anxiety about looming resettlement. Some violent protests did take place subsequent to fieldwork.

Environmental Context:

The Gwembe Valley is roughly 150 miles by 100 miles. The valley is surrounded by hilly uplands and plateaus that range from 3000-4000 feet above sea level. The valley is about 1400 feet above sea level.

The Zambezi River is fairly entrenched. Scudder's impression is that the flood plain is not that great in extent due to the rapid flow of the water. Swift water flow decreases sedimentation in the flood plain. But, floods do rejuvenate soils where inundated.

Monsoon rainfall pattern with a pronounced dry season.

Population density averages 25 people per square mile. Density ranges from 5 to 300 people per square mile. Density is concentrated in particular areas with good access to river land.

Resource: Arable Land

The resource concern in this description is principally land suitable for agricultural production. Three primary cereals are grown in addition to fruits and vegetables: sorghum, millet and maize.

From the perspective of informants land suitable for cultivation is dived into many specific categories. These categories can be reduced to two basic classes: subsidized and unsubsidized parcels. Subsidized land is land flooded during the wet season. This land does not require fallow. Unsubsidized land refers to land that loses fertility when continuously cultivated. This land needs fallow periods to recover important soil properties.

The classification of land is primarily based on whether or not flood waters inundate the land. This is very important, only land inundated by flood water can be cropped during the dry season.

There are two categories of subsidized land generally known as jelele and kuti. Jelele is river bottom land or river banks that are annually inundated by Zambezi floods, and have a relatively high water table. Jelele gardens are continuously cultivated and are important dry season gardens. These gardens are inter-planted with maize, beans, tobacco, and cucurbits. Kuti gardens

In a sample of middle river residents 65.53 percent had rights to jelele gardens and 14.87 percent of residents had rights to kuti gardens. Jelele gardens had a mean size of 0.23 acres and kuti gardens had a mean size of 0.31 acres (Scudder 1962: Table V). Together, jelele and kuti gardens make up about 10 percent of all cultivated land (Scudder 1962: Table V).

Jelele land is highly valued. The value of the land is in large part because it provides a source of dry season production.

There are two primary categories of unsubsidized farm land: unda and temwa. Unda is generally alluvial soil that is very occasionally inundated by floods. These fields are generally on old flood plain terraces and require fallow periods. At the time of observation, unda fields were generally degraded as fallow periods were not observed. Temwa is bush land cleared of mopane forest and planted during the wet season. Temwa had only been cultivated for approx. 15 years at the time of observation (Scudder 1962:44).

Unda and temwa gardens are generally planted in millets and sorghums. These files tend to be larger than flood plain gardens. The mean size of temwa gardens is 1.56 acres and the mean of unda gardens is 0.47 acres (Scudder 1962: Table V).

While unda gardens are over cultivated, temwa gardens are not. Land suitable for temwa is abundant.

82. 98 percent of residents have use rights in Temwa gardens. 91.49 percent of residents have use rights in unda gardens (Scudder 1962: Table V).

People do not manure or irrigate, although they do know about these farming methods. Technology is primarily limited to hand tools. However, there are plow teams that use animal drawn plows to plant at the beginning of the wet season.

Rules that govern land use rights

Rules that govern access to land are generally known as tenure. Land tenure refers to use rights and residual use rights to access segments of a landscape for the purpose of cultivating domesticated plants.

It is extremely important to note that, in this case, land use rights and rights to produce are separate. Crops are the property of the person who does the primary work of cultivating those crops. This may or may not be the same person who can claim permanent use rights to the land where the crops were grown.

Rule #1: All land that is not under cultivation is public land. Anyone can clear and cultivate this land. When a person clears land for cultivation, that person maintains use rights to the cultivated land for as long as it is in production. A person's lineage also has residual rights to cleared land.

Rule #2: Use rights to previously cleared lands are obtained either through inheritance. Land is inherited through lineage mates. Lineages are matrilineal, meaning inheritance of land use rights is derived from either one's mother or maternal kin.

Subsidized land (jelele and kuti) is obtained almost exclusively through inheritance or gift. Individuals take over the use rights to jelele and kuti plots (land regularly inundated by Zambezi floods) when they inherit the shades (i.e. the souls of a lineage mate).

In general, the lineage a person belongs to retains residual rights to the land that a person cultivates.

Land use rights that are inherited belong to individuals. Individuals can either gift the land or cultivate the land. Allowing the land to remain uncultivated would risk the land reverting back to common property (i.e. land anyone could claim by establishing a garden).

Unsubsidized land (unda and temwa) is also subject to residual lineage claims. Use rights to unda and temwa are a function of both rules #1 and #2. However, in the case of temwa fields, rule #2 rarely applies. Bush land is abundant, and any person who has the gumption to clear the mopane forest can establish temwa.

Rule #3: Use rights to land are also obtained through institutionalized gifts.

Land gifts are strategic ways of establishing social ties. Land gifts can happen in a number of different contexts. Each context dictates the cultivation rights of the person who has received the land as a gift.

Context #1: Fallow land (unsubsidized) cleared by a person and then gifted either to a spouse, child, or whoever prior to death. This situation applies especially to temwa. Where a person has cleared fallow land and gifts the land prior to their death, the person's lineage has great difficulty claiming the land at the death of the giver. In other words, if a person receives temwa as a gift from the person who cleared the land, prior to their death, the receiver's tenure is secure. Secure in this sense means that the receiver can use and allocate the land as they see fit. Conversely, if a person who has cleared fallow land dies without gifting the land, that person's lineage mates may mount a claim for the land. Though this claim is far from certain.

Context #2: Land (especially subsidized land) gifted and received within a lineage. The receiver of gifted land in this context has secure tenure rights. The receiver has use rights for their lifetime. And when the receiver passes away, the land remains within the lineage

Context #3 Gifts of land (especially subsidized land) received from paternal relatives. This land is received as a gift from non-lineage mates. Land receivers have use rights to land in this context, but their use rights end at death. Also, if a person attempts to reallocate land gifted to them farm a paternal relative, the paternal relative's lineage can object. This land can also be recalled from the receiver of the gift.

Rule #3 is associated with a larger institutional arrangement known as the latunda. The latunda (which extends beyond gifts of land) links children to their paternal kin. This link is primarily established through gifts received from one's father and gifts one's children receive from their grandfather. Fathers and grandfathers give use rights to river land (jelele and kuti) to members of their latunda.

Use rights to these lands can persist over two generations. Where this occurs, the lineage that holds residual rights to the land will shift, and members that know of the residual rights will die or move away. Social memory is short. Where residual lineage rights to river land that was originally gifted become ambiguous, the lineage of the person currently using the land will claim the land. In this way, the parcels of river land which lineage mates can claim residual access to are constantly shifting and are also highly fragmented.

Rule #4: Use rights to land may be established through use rights loans.

Loans are simply temporary agreements between individuals that transfer cultivation rights for a specified period of time. These loans are established on a mutualistic basis. The purpose, from the point of view of the loaner is to keep the land from being uncultivated and possibly reverting to public domain. The purpose, from the perspective of the lease, is to expand their production.Loaned land can be recalled at any time. However, all produce grown on loaned land belongs to the person who cultivated the actual plants. Tenure of the land and the plants on the land are not synonymous.

Rules that govern rights to produce:

Rights to produce are invested in individuals. Each individual belongs to a household unit. Ideally, households are residential units composed of an adult male, his wife or wives, and their children. Households are not monolithically composed, there is variability in membership. Households range in size from 2-14 people.

At any one time, fields cultivated by households come from between four and six lineages. This means that household land is often fragmented. The cultivation of both bush and river gardens also contributes to household land fragmentation. However, river land is generally cultivated in the dry season while bush land is exclusively cultivated during the wet season.

The individual use rights, either to gifted or inherited land, as well as wage labor migration, means that for much of the time households are not coresident. Individual producers often spend time residing at or in their fields.

The integration of households is primarily through reproduction and rules that govern access to produce.

Rule #1: The person who cultivates a field, regardless of whether they can claim permanent use rights to the field, owns the crops that they have cultivated.

Rule #2: Each individual adult producer has their own storage facilities. However, male household heads have large stores used to brew beer and supplement individual household members, if their stores run low. Access to the male household head's store house is a major issue, especially among cowives. Ideally, each of a man's wives should have equal access to his stores if their grain stores run low. Sorcery accusations are common in the context of competition for stored produce.

Rule #3: When one runs out of produce, food is obtained through invoking social obligations. Colson (1960) refers to this as institutionalized begging. If one's stores are completely run out, one may request grain from kin or friends. This is a game of invoking social obligations on the beggar's part and avoiding social obligations on the part of the person who is the target of the beggar. In essence, each encounter is a negotiation of where each party stands with respect to their obligations as social actors. Beggars can always resort to sorcery accusations if they suspect a person is holding out on them.

Rule #4: Debt service. If a person is chronically short on produce, they may enter into a debt

service relationship. This is a situation where a person receives food in exchange for services that they will perform “for free” when called upon.

Robustness:

It is difficult to determine the robustness of the system for managing land and produce access. In one sense, it is not robust. Colson (1960) and Scudder (1962) both note that people experience famine in this area on a regular basis. Not everyone experienced famine during famine years, however.

One of the main responses to famine was for people to migrate out of the valley on onto the surrounding plateaus. People often have trading partners and kin among the plateau Tonga and they migrate to be with these people if conditions get too poor in the valley.

On the other hand, the region had experienced rapid population growth from 1900 to 1950. And it is population growth that led to the scarcity of jelele and kuti (subsidized land) and the over cultivation of unda (unsubsidized land).

Public Infrastructure:

Public infrastructure refers to physical and social capital. Capital in this broad sense is the presence of physical and social structures that reduce the costs associated with accessing and monitoring use of a resource.

Following Ostrom (2005: 24) arable land is both a public good resource (bush land) and, in theory, a common pool resource (river land). River land, however, straddles a boundary between common pool resource and private good. Everyone should have access to river land. But river land is finite. There is only so much to go around. Therefore, some lineage members, where river land is scarce, have not inherited river land through their kin nor received any river lands through gift. Thus, in practice, people are excluded from river land, though people’s ability to exclude others is not institutionalized. In fact, it is against custom to sell any land, especially river land. Institutionalized rules and practices for excluding people from river land do not exist.

There is very little physical public infrastructure related to accessing and using arable land. Irrigation is not practiced. Government mandated cassava fields are ignored and planted on poor land.

The lineage provides social capital for justifying access to land.

The latunda institution provides social capital for claiming land that is not held by one’s own lineage.

Grain storage facilities constitute infrastructure managed by individuals at several different levels of access. Grain, unlike land, is an individual resource. The plants planted on land and the fruits of the plants are individual property and it is easy to exclude others from one’s grain stores. Grain stores are not only private, however. At the household level, household heads must allow their wife or wives access to their stores if a wife’s individual stores run low.

Grain storage facilities provide place to keep agricultural products for substantial periods. Thus, once constructed, they provide a place for storing grain capital

Stores also serve as sources of capital in the sense that "begging" or food requests are institutionalized. Storage facilities provide both a source for monitoring one's neighbors and relatives as well as attempting to deceive them. Where storage facilities are obviously full, people open themselves up to significant numbers of food requests. In a sense, food requests turn a private resource into more of a common pool resource. Denying food request when people know that you have food would signal greed. Greed is the source of sorcery, and sorcerers need to be dealt with.

Institutionalized food requests serve as social capital for acquiring food from those who have it. The threat of sorcery accusations allows the institution to work.

Public Infrastructure Providers

Infrastructure providers are groups or individuals that organize and create physical and social capital.

In this case infrastructure providers are basically the same as resource users, especially where accessing arable land is concerned.

Lineage members- lineage members are a corporate body that justifies their member's access to certain tracts of land.

Latunda – refers to father-son relationships that carry on two generations. The Gwembe are matrilineal. Thus, institutionalized father-son gifts of land help justify land use rights outside of the lineage framework.

Bibliography

Ostrom, E. 2005. Understanding Institutional Diversity. Princeton University Press, Princeton, NJ, USA.