

The role of a local committee  
in changing times:

# Irrigation management



The Trans-Himalayan region of Nepal is often referred to as the country's desert. Water is a scarce resource that has traditionally been managed through local norms and institutions. The remoteness of the region has limited the role and influence of the central government. Although the locally managed irrigation system has been running for centuries, recent developments make people wonder if this approach is sustainable in the long run.

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# in the Himalayas

**M**ustang, in the Trans-Himalayan region of Nepal, is one of the country's most remote districts. The upper part of the district, at altitudes that start at 3,800 metres above sea level, looks like the Tibetan Plateau, with wind-eroded, rolling, yellow and grey hills. Rainfall is less than 200 mm per year, so even though farmers have sufficient land, they must keep part of it fallow due to the shortage of water. The upper Mustang area used to be headed by a local king called Jigme Palwar Bista, but since 2008 (when Nepal became a republic) his role is now chiefly ceremonial. Local people respect him, and he still plays a significant role in the distribution of water, as part of a system that builds on the local hierarchies and stratification which divides society into an upper ruling class and a lower working class.

Lomanthang is one of the many villages in this district. As in most villages, it has an irrigation committee which, in this case, consists of nine members. While the local king is its head, the committee is run by a chairman known as the

Ghempo. There are two Mithue or secretaries (one of whom is appointed by the king and the other one by the Ghempo), and six Tshumies or messengers. After the King, the Ghempo is the person with the most influence, and he is the authority in issues related to irrigation and agriculture. All cases of conflicts, fights and robberies are brought to the Ghempo to adjudicate on. Ghempos are always members of the Bista family, and although they do not get a salary, they receive 25 percent of all the fines imposed. The Mithue are next in the chain of command: only literate males are appointed to this position. Serving as secretaries to the Ghempo, the Mithue keep all the records related to the irrigation system. They also have the responsibility of managing the committee's finances. They do not get a salary for this work, but do not have to contribute any physical labour. The Ghempo also appoints a number of Tshumi who act as the supervisors of the irrigation system, and as such they have important responsibilities. They have to stay close to the canals during irrigation (even during the night), and are responsible for reporting anyone caught stealing water to the Ghempo. Similarly, if

they find livestock grazing in a field with crops, their owner is also taken to the Ghempo. They are also responsible for collecting all the fines, by going door to door. While they don't get any salary for their work they do receive part of the collected fines. Being part of the committee brings them prestige, as well as giving them priority in the irrigation rota.

### **Water allocations and local culture**

An efficient allocation system is essential when rainfall is limited. In general, the most common method in the upper Mustang region is a lottery. The Ghempo throws the dice in the presence of the Mithue, Tshumi and all the local villagers to determine the sequence for distributing water. However, the Ghempo can give priority to a specific plot regardless of the results of the lottery. Members of the committee and other upper class farmers have priority over other villagers. Water allocation also depends on the type of crops cultivated. The first priority is given to wheat and naked barley, followed by peas, buckwheat, mustard and potato. All the villagers know that wheat and barley are highly sensitive to water stress, and that yields suffer if irrigation is delayed (showing that the water allocation patterns have a scientific basis). Another reason for giving priority to these crops is that they are the main staple foods in the region, and are also used for making chhyang, a popular drink. But the committee's roles extend beyond the allocation of water. One frequent concern is to ensure the maximum efficiency when watering plots, diverting the water to the next plot as soon as possible. In addition, the committee members need to

be permanently alert in taking care of the irrigation infrastructure. The sandy soils which predominate in the region mean that the canals frequently break, and the committee needs to respond to this immediately. If there is a small breakage, the Tshumis have the responsibility of repairing it. But if they cannot, then they ask each household to contribute with labour. Those who refuse to help have to pay a fine, or run the risk of being excluded from the system altogether.

### **Unequal relationships**

Critics of this system point out that it is based on an unequal or asymmetric relationship between the upper class villagers, who run the system, and the lower class farmers. Others argue that this is justified as farmers depend on the upper classes for food in times of scarcity, and also for loans and land. The irrigation canals were built on the initiative of the upper classes, and they still play a crucial role in the day-to-day management of the system, in terms of decision making and networking. While farmers provide the manual labour, the upper classes provide the necessary cash and infrastructure. This mutual interdependency has kept the system functioning as an efficient way of dealing with water scarcity. According to Narendra Lama, leader of the Annapurna Conservation Area Project, the system is based on local knowledge, and because of this it works efficiently. At the same time there are also many voices demanding that farmers get more water, that their income increases, or that roles and responsibilities within the village change, giving them a stronger voice. Irrigation projects and programmes, in Mustang

## **Culture and traditions**

For the local population water is both a utilitarian and a symbolic resource. Besides being used for drinking, cleaning and irrigation, water is also seen as a divinity, and plays a central role in all village rituals. Most villages have constructed a *chorten* near the source of water, on top of which they fly a flag. These *chortens* are small edifices made of stones and mud, and have different styles which reflect the local architecture. Villagers also plant various cold-tolerant species around the sources of water. These plants are considered to be sacred and are never cut. This is all done to ensure that the gods won't become angry and to avert drought.

The clearest example of how culture governs the management of water is seen during the Sakaluka festival which is celebrated on the third day of the first Tibetan month (February/March), and represents an auspicious moment to begin the agricultural activities of the new year. During this day, all villagers go to the king's fields. They plough the field, add manure, and start the agricultural season by sowing wheat seeds. Both the king and the queen take part in the festival. And then the new irrigation committee is formed, and the coming year's water allocation schedules are hammered out. The whole village is ready for a new agricultural year.

and in other parts of Nepal, have tried to improve the availability of water. Running with the support of the national government or of donor organisations, they all hope to benefit farmers. But they seldom recognise the existing, locally-sanctioned norms, so they run the risk of destroying the social capital that has developed over centuries. Many studies show the crucial role that such social capital plays in the governance of common resources. It takes a long time to develop accepted rules and norms of governance for these resources, but relatively little time to erase them. A frequently mentioned example is the tank irrigation systems in southern India, which were based on social

very well.” There is a general feeling that, in the past, nobody dared to violate the rules, but that this is not so anymore. These changing attitudes are partly related to the interest of the younger generation in migrating to the cities and not wishing to continue farming. More difficulties may emerge as a result of the stronger presence of the government in the area, and the increasing presence of development projects.

**A balancing act** The Lomanthang irrigation system has developed over hundreds of years and is rooted in a specific political, social, cultural and economic environment. It has proved to be an



**The challenge Lomanthang faces is to develop more equitable rules on the basis of local social capital.**

hierarchy and were the prevalent mode of irrigation before British colonial rule. When the British government implemented a new set of formal rules, it completely wiped out the existing social capital (based on the informal relationship between the ruling and the working class), and the authorities were unable to replace it and keep the irrigation system working. The challenge today is to develop more equitable formal rules that build on existing social capital.

Others recognise additional risks elsewhere. Amji Bista, the Ghempo in Lomanthang, has expressed his concerns about the future. Many young people are reluctant to follow the traditional regulations and norms, and he sees increasingly frequent violations of the irrigation norms giving rise to conflicts. “The irrigation system used to function properly in the past because of a strong internal cohesion and because the different groups of people understood each other

efficient model for a semi-arid region. The social hierarchy and the informal rules and relationships ascribe different roles and responsibilities to different social groups. However, the changes occurring recently in Nepal are undermining the hierarchical organisation and the social capital on which this system depends. A difficult balancing act must now ensure that private and public efforts succeed in improving the livelihoods of the population, while at the same time ensuring that water continues to be available, and that farmers are able to irrigate their land.

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