



'Zings': Ponds of Life

Dr. Parveen Kumar*, Dr. Sonam Angchuk**

KVK Ramban SKUAST-Jammu



Introduction

The Union Territory of Ladakh is situated at an elevation of 2900 m to 5900 m above mean sea level and this makes it one of the highest and coldest regions in the world. The UT is also the principal cold desert. The maximum and minimum temperature here varies from +35°C in summer to -35°C in winter. The summer season here is shorter and mild with a long and cold winter. Barley constitutes the major crop of this cold arid region followed by wheat as the next main crop of this cold arid region. Due to long harsh winter season, the region remains cut off from rest of the country. This isolation of the region necessitated and has led to a number of indigenous tools, technologies structures and practices. Majority of the people in the region sustains on agriculture while some others are absorbed in tourism and small related business. Agriculture is practiced in the short period of summer months from April-May to Sep-October. In winters due to harsh climatic conditions nothing can be grown in the open fields. However, some vegetable cultivation is done under protected conditions in poly houses. In this dry desert of Ladakh, farmers depend on water from melting snow and glaciers. Further the availability of this water to be used for irrigation depends upon the amount of snowfall that had occurred in the last winter season. As such the water has to be used very judiciously. This judicious use of this scarce resource is also necessary because of the climate change and shift in precipitation patterns. Locals have also reported witnessing a decline in snowfall over the years. As such, *Zings* play an important role in conservation of this natural and scarce resource in this Union Territory. *Zings* (Fig. 1) as they are called in vernacular are traditional, small water-harvesting structures used to collect melted glacier water. *Zings* are also called as *Tokpos* in certain parts of UT of Ladakh.



Fig. 1: A Zing, in a village 'Saboo' in District Leh,



These are essentially small reservoirs or ponds built to capture and store melt water from glaciers. *Zings* are crucial for agriculture in Ladakh, providing a vital water source in a region with limited rainfall. They get filled with water through a network of channels that directs the water from the glacier to the zing, allowing for a controlled flow, especially during the day as the glaciers melt. As glaciers melt during the day, the channels fill up with a trickle that in the afternoon turns into flowing water. The water collects towards the evening, and is used the next day. During winters, when temperature dips down too much and reaches negative value, the water in the *Zings* may freeze, creating layers of ice that can be used later.

Their construction, maintenance and use for irrigation purpose is largely through a traditional institutional arrangement known as '*Churpoon*'. This arrangement ensures timely and equitable supply of water to all the farming community of that particular area. '*Churpoon*' in the local language is used for the water supervisor, who leads the group of these water managers. The '*Churpoon*' as a leader of the group has all important roles to play in ensuring judicious use of this resource. Appropriate time slots and durations depending upon the land availability with the individual farmers have been allocated and made in this system. At the same time the system has an inbuilt system of sanctions also for those who defy the set procedures. The word '*Churpoon*' means 'Lord of the water', derived from '*Chur*' meaning water and '*Poon*' meaning Lord. Water supply to all is supervised by this '*Churpoon*'. Only male members are considered for '*Churpoon*'. He is selected by the villagers as in charge of water distribution for irrigation and is perhaps the most important functionary in this regard. The *Churpoon* is expected to consider the fields of whole village as his own and to know the order in which water is to be distributed to a particular crop in what quantity and when. He should also know how to preserve water in times of scarcity.

If there is sufficient precipitation (snowfall) during the term of a *Churpoon*, than he is considered to be a Lucky "*Churpoon*". A person of these qualities was selected by consensus in earlier times. Nowadays rotation system is prevalent in most of the villages. One can find such an arrangement in almost every village except in villages where water is in abundance and there is no need for its judicious use or management. In villages where water is a scarce quantity, there are even more than one '*Churpoon*'. The term of a '*Churpoon*' may vary from a cropping season to three or more years. For their service they are paid in kind or cash. In kind they are given *so-nyom* (one man load of cereal crop with some variation region wise) after the harvest of crop. When it is in cash, they are provided according to the quantity of land the household possess and have been irrigated by them. The larger the area the greater amount/quantity they get. It also varies for 100 to 500 per household depending on the size of landholding. In the villages where water scarcity is a major problem, the main canal is also guarded by them on a rotational basis and sometimes they have to sleep there too.



One major issue that people of Ladakh face is the scarcity of water. It has become an inherent problem among the people who practice agriculture and allied sectors. Unequivocally evident from the barren and uncultivated lands; drying springs; low level of water in rivers and excessive digging of bore wells the inhabitants of this cold desert face threat to their economic existence- i. e agriculture. In such a scenario, *Zings* play an important role in ensuring that their agriculture and allied activities do not suffer and they continue to support them either directly or indirectly.

