# Water Management

## The *neeruganti* way

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***A Neeruganti is a person appointed by the community to manage water in a just and equitable manner. In order to do this, he made use of very simple, but creative methods to ensure that water was available equally to the whole community. The Neeruganti was thus a highly appreciated member of the community and recognized for his high standards of justice.***

The word *neeruganti* is used for a person who controls and manages the distribution of water in the village or community tank. This person is responsible for the equitable use of water for irrigation purposes as well as ensures that this is done in a uniform and just manner.

Although it is not clear as to when this system came into force and how it was used, yet it is known that the *neeruganti* system was in existence in every irrigation system in the state till as recently as 50 years ago. Historically, wherever tanks were in existence, the *neerugantis* managed the water equitably as well ensured that the tank was maintained.

Though water management may appear to be a simple task, yet the duties of the *neeruganti* were numerous. The key functions of the *neeruganti* were to :

- ensure uniform supply of water to all fields in the command area
- determine the type of crop to be grown based upon the water available
- decide on the dates and times for supply of water and cessation
- inform everybody about the dates through beating of drums
- inform the farmers in case their crops were afflicted with pests or diseases
- ensure proper maintenance of the tank outlets
- decide upon a date to repair the tank canal
- arrange "*Ganga Pooja*" to invoke the blessings of the God for plentiful water in the tank.

### Wide-ranging responsibilities

Of the wide-ranging tasks, the most important duty of the *neeruganti* was to ensure fair distribution of water to every farmer in the community, irrespective of class or creed. In fact, only the *neeruganti* had the right to decide the usage of water in the tank and its outflow pattern. No one could question him and his decision was always respected as it was believed to be fair and just in all respects. The *neeruganti*

thus, enjoyed a position of great honour and importance in the village and was recognized to display a commendable sense of justice in his work.

The faith of the farmers in the *neeruganti* system is reflected in the words of Maregowda, a farmer in Chudasandra village in Anekal taluk in Bangalore Rural district, "The tank in my village always has ample water and everyone gets a fair share of this. This is all due to the *neeruganti* system."

Though it was the duty of the *neeruganti* to manage the water, yet it was not his decision. The decision on the use of the water was made by the village leaders and the community in a joint process. The *neeruganti* had to follow the directions and implement the decisions taken by the elders regarding the use of water and the maintenance of the tank.

**Creative management**

The role of the *neeruganti* came into the spotlight in the more difficult cases. For instance when the volume of water was low and the command area was vast, he was allowed to design his own method to ensure equal distribution of water among the beneficiaries. Though the *neerugantis* were generally illiterate, yet their knowledge and skill in management of water was truly amazing. This was most notable in the fact that these methods provided water in a fair and equal manner to the whole community, even in times when the village faced water scarcity. This spoke volumes of their wisdom and knowledge.

Let's look at one instance: at times of water scarcity, all the farmers wanted more water to be fed to their fields in an effort to protect their own crops. This made them greedy and demanding of this resource and arguments and conflicts used to break out between the farmers and the *neeruganti.* To avoid confrontation and ill-will and yet to ensure equity, the *neerugantis* started releasing water during the night hours. This ensured that the farmers did not disrupt or interfere with the work of the *neeruganti* as yet equity was ensured.

The *neeruganti* also had several unique methods to protect crops when there was less volume of water in the tank. For example, the *neeruganti* in Thalaku village of Chitradurga District followed three different methods to assess the moisture levels in the earth:

- *Thumb level moisture:* If the water level decreased to less than quarter of the tank capacity, the thumb level moisture index was observed. In this method, the thumb was pressed into the soil. If it pierced through the soil up till the nail, it was decided that the field had enough water to sustain the crop. If not, the farmers were directed to grow vegetables that were less water intensive.
- *Weekly flow:* If the water level in the tank was more than quarter but less than half, the weekly system was brought into force under which, water was released only once a week. The *neeruganti* suggested to the farmers that

during this lean period they should grow crops like finger millet and groundnut, which required less water.

- *Light dispensation of water* : When the tank was more than half full, the amount of water was sufficient for paddy cultivation. Yet the *neeruganti* released only enough water that could cover the soil very thinly.

In general, the methods suggested by the *neeruganti* were accepted by all the farmers. Undoubtedly, the *neeruganti* was very methodical and handled situations adroitly.

### And in tricky situations...

A common problem faced by the *neeruganti* was in the use and spread of the water to the lands which were further away from the tank. In order to extend the use and spread of water, the *neeruganti* decided to release the water in a way that the fields at the far end were fed first. Subsequently water was released to the fields closer to the tank. This was an intelligent system of water usage as in actual practice, the latter was seldom needed, since the moisture that seeped into the ground during the flow to the far end was in fact, sufficient for the fields closer to the tank.

In another situation, the *neeruganti* of Thalaku village followed the canal lock method to prevent farmers from letting the water into their fields on the sly. In this system, after the quota of water was allotted to each field, a clay mound was created at the mouth of the canal and the letters "Ka" and "Bi" were impressed upon the mound. This acted as a seal and those who broke it would be treated as offenders.

In yet another case, the *neeruganti* of Gatla Gollahalli of Koratagere Taluk had a unique way of distributing water when the water level in the tank was less. In these times, it was the general practice that each field received a fixed quantum of water for a specific time period in the day. However, clocks and watches were not commonly available; thus the *neeruganti* had to invent a method for timing the release of water supply. In an innovative response to the problem, he composed songs of different lengths which were ear-marked for specific time slots and periods. Thus, a big canal outlet would merit a lengthier song while a smaller one, a shorter song. He would open the canal outlet and start singing and once the song ended, so would the flow of water!

The *neeruganti* often faced a dilemma while deciding how much water should be released from the tank. He knew that he should not empty the tank by feeding the fields indiscriminately. This is where Halekere, the *neeruganti* of Parasuramapura displayed his ingenuity. He drew three images on the tank outlet – a flute at the lowest portion, a wheel at the center and a conch at the top. The flute

had seven holes and this meant that when water was at that particular level, it could be let out only once in seven days. The wheel has five radials implying that water would be made available once in five days. When the water was at the level of the conch, farmers could enjoy a daily supply. This method of coding designed by an unlettered *neeruganti* was indeed fool-proof and left no scope for any confusion or doubt whatsoever!

### Ensuring tank maintenance

Alongwith managing the distribution of the water, the *neeruganti* had to ensure the maintenance of the tank as well as the canals. For this, he sought the cooperation and participation of the farmers. He made announcements accompanied by beating of the drums announcing the task to be done. It was mandatory for the community to participate. Those who ignored the call faced punishment by the elders of the village.

The case of the Bhujangayya Tank of Sakalavara village in Anekal Taluk is interesting. The bund had broken and repair had been neglected by the villagers for want of adequate money. Muniswamappa, the *neeruganti* of the tank wanted to bring this issue to the notice of Sri Jayachamarajendra Wodeyar, the then Maharaja of Mysore. When the Maharaja came for a visit to a nearby temple, the *neeruganti* placed his stick across his path and brought the problem to the Maharaja's attention. The Maharaja immediately ordered the repair of the tank. This action of the *neeruganti* earned the praise of the villagers.

In fact the *neeruganti's* stick was a symbol of power. The otherwise ordinary stick, was often used to command power and centralise authority on him. The *neeruganti* used this authority to keep a check on the behavior of errant farmers as well. No one dared to cross over the stick if the Neeruganti placed it across their path.

Though water management was the main duty of the *neeruganti,* he also actively involved himself in other farm activities – such as in the making of jaggery when farmers harvested sugarcane. These responsibilities, however, varied from area to area.

### Payment in kind

Honorarium was paid in kind to the *neerugantis* through unique systems, each designed by the community. In several cases, they were given lands at the beginning, middle and far end of the command area. In addition, every farmer would give a portion of his produce to the *neeruganti* as per an agreement reached by the village elders. In some villages, the *neerugantis* were given as many stacks of harvested produce as they could carry at one time from the centre of the field to the edge of the field. The grains, which fell to the ground while paddy bundles were being transported and loaded from the field to the cart, also belonged to *neeruganti.* Similarly while transporting the threshed grains from the threshing yard, the first measure and the last measure of the grains were given to the *neeruganti* as his remuneration.

## From father to son

The general practice was that one *neeruganti* took care of one tank; however if it was very huge, more than one *neeruganti* was appointed. In some cases, two or three *neerugantis* were required to manage the bigger tanks. An elder known as *Hirikara* supervised the work of the *neerugantis* in cases where there was more than one appointed.

The system was hereditary and the father passed on the baton to the son. Sometimes there were exceptions to this rule and the responsibility could be transferred to another person after a consensus between the villagers and the exiting *neeruganti*.

The *neerugantis* generally belonged to the scheduled castes, though there were some instances of people belonging to other castes, and even of women, holding the post.

## Change in policy

In 1962, a uniform irrigation policy was enacted for the entire state of Karnataka and the *neerugantis* associated with huge tanks were taken into government service as *Mettis*. However, no recognition was given to the *neerugantis* of smaller tanks. Furthermore, they were also ignored when Village Accountants were appointed to each village. Thus, many *neerugantis* did not find a place in the changed village administration and this led to a drop in their status in the community.

Moreover, new cropping patterns of alternate cash crops, like areca and coconut, meant that they no longer received contribution in kind. This added to the problems of the *neerugantis,* as there was no defined system to decide their remuneration from these crops. The *neerugantis* were, thus, increasingly relegated to the background.

The *neerugantis,* who for many centuries had been regarded as central to the water management processes in the village were hurriedly displaced by a government order in 1962, when the tanks were taken over as Government property. The instinctive wisdom and knowledge that they possessed on tank maintenance was lost and they had no recognition in the new political order. This brought an sudden end to this unique time-tested system of water management.

The vast experience, indigenous knowledge and expertise of the *neerugantis* in water conservation, distribution and tank management unfortunately has been allowed to evaporate and fade away!

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