

Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development and Ganga
Rejuvenation
(National Water Mission)

**Proceedings of the Twenty -Second (22nd) Water Talk held on 19th
February 2021**

- National Water Mission (NWM) has been organizing a seminar series-‘Water Talk’ -to promote dialogue and information sharing among participants on a variety of water-related topics. The ‘Water Talk’ is intended to create awareness, build capacities of stakeholders and encourage people to become active participants in the conservation and saving of water. NWM has so far organized 21 ‘Water-Talks’ on a range of topics dominating the sector concerns.
- **Twenty -Second (22nd) Water Talk** in this series was held on 19th February 2021 on a virtual platform- ‘CISCO WEBEX’ due to outbreak of Covid-19 pandemic in the country. The talk that witnessed more than 650 participants was organized by NWM with the support of Water Digest, the official media partner for the webinar. The talk was delivered by **Shri Shirish Apte, Superintending Engineer, Maharashtra Water Resources Department.** Shri G. Asok Kumar, Additional Secretary and Mission Director, NWM and officials of NWM attended the webinar along with more than 650 participants. The webinar included participants from across the country from various spheres of life. The talk was also live-streamed through Facebook on the 11 social media platforms of various organizations under DoWR. It was noted that there were over 4,000 total viewers in this e-water talk
- Shri G. Asok Kumar, Additional Secretary & Mission Director, NWM welcomed the participants and introduced NWM along with its 5 goals, 39 strategies and the successful campaigns like ‘Sahi Fasal’ and ‘Catch the Rain’. NWM, in collaboration with Nehru Yuva Kendra Sangathan (NYKS), recently launched “Jal Shakti Abjhiyan: Catch the Rain” awareness generation campaign which will be implemented across 623 districts of the country. With the switch from the physical to digital platform, the reach of the talks have exponentially grown both geographically & numerically with people participating from all across the world from countries like Australia, China, Nigeria. Many water aficionados, eminent personalities including Padma awardees and individuals having done tremendous work in the water sector have been invited to deliver the talk in the past. The theoretical and practical experts shared their experiences on they transformed the lives of local communities through motivation and people engagement.
- The topic of the e-talk by **Shri Shirish Apte** was **“Rejuvenation of Malguzari Tanks in Vidarbha”**. Shri Apte explained the historical

significance of the “Malguzari Tanks” and how they came into existence during the reign of “Gond” and “Bhonsla” kingdom for irrigation and cultivation of lands. During the Bhonsla era, an elaborate land revenue record system was laid down by the kings. In this system, there was one particular section was called ‘Wazib-ul-Arz’ or ‘Record of Rights under which the kings granted “free water rights” to the farming community.

- In 1860, the British government defeated the Maharashtra kings and decided to carry out a land revenue settlement exercise in Vidarbha. The British govt. granted tenancy rights to these farmers and offered them a title of ‘**Malguzar**’, and since these tanks were constructed by Malguzars, they came to be known as ‘**Malguzari tanks**’. The peculiarity of these 300- year old Tank systems is that- firstly, they were constructed in a technical manner from the ridge to valley, secondly - in the ‘Malguzari’ irrigation system - the land rights and water rights were offered to the stakeholders. The third important aspect of Malguzari tank was that it was maintained daily, operated and actual irrigation was performed by group of farmers. The prominent peculiarities of Malguzari system were also appreciated by British government and also mentioned in 1908 Gazette of India from Bhadara district. However, post-independence and abolition of ‘Malguzari system, the Malguzars lost ownership of these tanks, leading to neglect and eventual deterioration.
- The Malguzari system was governed by a water distribution committee called “Paani Vatap Committee” which had a role similar to the modern-day “Water Users Associations” - to provide water entitlement to its stakeholders. The approach towards the irrigation was impartial and neutral as the irrigation was carried out by the local landless mazdoors of the village, who lacked any stakes in the command area. The prominent peculiarities of Malguzari system were also appreciated by British government and mentioned in 1908 Gazette of India from Bhadara district. It said, *“These large tanks have been constructed by members of Kohli caste and, though built without technical engineering knowledge, they form an enduring monument to the natural ability and industry of these enterprising cultivators”*.
- However, after gaining independence from the British, the Vidarbha region became an integral part of Central Province and Berar and the Madhya Pradesh assembly in 1950 passed a resolution related to the abolition of Malguzari, later called as “Abolition of Malguzari’ Act in 1950. Whereas, the government of Maharashtra made a policy decision to modernise these tanks and established a Malguizari Tank division in Gondia. The state government started charging water cess within Malguzari lands which became a point of contention between the Malguzars and the government. Aggrieved by this action of the Government of Maharashtra, the Malguzars fought a legal battle against them in the Supreme court. The SC gave its

verdict in favour of the Malguzars making them the free right holders of these tanks. However, as the central govt abolished the Malguzari system, meaning Malguzars losing their ownership of the tanks, they weren't interested in maintaining them either. And since the Maharashtra government wasn't getting any revenue from these tanks, they were also unable to maintain it. From this point onwards, the deterioration of the tanks began.

- After Shri Shirish Apte took over as the Executive engineer of Minor Irrigation of Bhandara division in 2008, he visited the location of these tanks and found them in a really bad shape. He took up the issue with the Maharashtra government and persuaded them to form a committee to look into the work related to the revival of Malguzari tanks. Based on the recommendations of the committee, a Government Resolution (GR) was passed which outlined the tasks to be carried out for reviving these tanks and also the financial aspect connected to the rejuvenation process. The actual cost of the rejuvenation of each tank would be worked out and if the cost was well within the financial norms, the proposal would be approved at the local level by the chief engineer or executive director of the division.
- The rejuvenation process was categorically described in the GR created by the Maharashtra government. The first step was de-silting of the tank and removal of fine sand that was carried by moving water and deposited as sediment. After the de-silting was completed, the boundary wall of the tank was strengthened and earthen-bunds were also constructed. The methodology of the process included conducting a preliminary survey for the identification of heavily silted tanks with weak embankments, preparing estimates for carrying out the task, sending the estimates to seek approval from the Maharashtra government for carrying out the rejuvenation work. The first tank that was restored in 2008 was the Jambhora Malguzari tank located 35 km away from Bhandara.
- The first Malguzari tank rejuvenated was from Village Jangora. Shri Apte shared how his team went to seek consent from the village of the command area before undertaking the rejuvenation work and depositing the silt in the land. The silt contains phosphorous and nitrogen components which act as green manure for the soil. The local officers of the Fisheries department suggested that they construct a shelter pit, a concept that was a first of its kinds and hadn't tried earlier in any project. The mechanism of the shelter pit was when the water levels are low during summers, the water would accumulate in the shelter pit helping in sustaining the fish in the pit. As they would survive during the 3-4 months of summer, the fish would start natural breeding adding to the fish catch for the local fishermen.

- Further, work related to the strengthening of earthen bunds of the Malguzari tanks was started as they were found to be quite shaky with the top width of the earthen bunds being reduced to 1.7m-1.6m against a 3m minimum. And in case of overflow during monsoons, there were no guide bunds on either side of the field channel to obstruct the flow. Hence, it was necessary to construct guide bunds to prevent the water from moving around and entering the adjoining field and damaging the crops. The concept of guide bunds was a new component included in the existing Malguzari system. Another task undertaken was the repairing of canals as the canal section was found to be very small, measuring only about 3-4 feet. The work was undertaken under the MGNREGA scheme by the farmers in the command area. The work was decentralized and managed at the district, block or taluka level. Since the workers possessed job cards and registered bank accounts, the wages could be deposited directly into the accounts of those working in the project. This ensured transparency and without any outsourcing of work.
- The speaker shared that there were 28 Malguzari tanks under my division out of which 22 Malguzari tanks were in a very serious & critical condition. The entire process of rejuvenating these 22 tanks took 3-4 years. GR prepared by the water resources department for the Malguzari tanks was also adopted by water conservation and rural development department so many tanks were under the control of the same department. Many public awareness programmes were organised related to this project. Every year in Bhandara a one-day workshop was organised for all engineers involved in the process from the water resources dept., water conservation dept. and rural development dept. Workforce from all three departments worked as a team along with the district collector & other officials, Chief Executive Officer from Zila Parishad, District Collector and other officials to rejuvenate the Malguzari tanks.
- The benefits of the restoration process have shown improvement in groundwater levels of the area, increase in agricultural output, creation of additional drinking water sources and also helped in increasing employment opportunities. The removal of silt in the tank belt considerably increased the capacity of tanks. The repairing of canals also minimised the losses and ensured that farmers get water for atleast two seasons. Earlier farmers used to get only 1 or 2 rotation of water during Kharif season but the restoration of tanks and improvement in the condition of earthen bunds and canals enabled the farmers to grow 2 crops in 2 seasons i.e. Kharif & Rabi.
- The deposited silt from Malguzari tanks which are rich in Nitrogen and Phosphorus content was acting as manure and helped the farmers to increase the ability of the farm's soil to generate more crops and farm activity. The increase in water availability and fodder

all through the year enabled the farmers to maintain cows & buffaloes adding additional income through animal husbandary. This also encouraged many to construct 'gobar' gas plant in their backyards, decreasing the need for villages to enter the nearby forests in search of firewood, thereby decreasing the probability of man-animal conflict. The increase in the availability of drinking water during peak summers has positively affected the herbivorous animal population, tiger population, frequent sighting of tigers in reserves, adding additional income to the tourism industry. However, Shri Apte maintained that the main two beneficiaries of the exercise were farmers and fishermen.

- The talk was followed by a session of questions and answers wherein members from the audience were invited to discuss their queries with the speaker. The webinar saw some interesting and unique questions from people across the country.
