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HISTORY OF WATER IRRIGATION AND WATERSHED DEVELOPMENT

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ABSTRACT

In the present essay this subject has been studied in water management and watershed. For this, the history of water management has been studied. From history to the white paper, a review has been done. Water management means using the available water properly, at the right time, in the right amount in a planned way so that the crop does not get water stressed and there is no wastage of water. In such conditions, it has been observed that there has been a substantial increase in crop production. An essential aspect of sound water management is the integrated assessment and planning of climate, land and water use studies. Farmers need to identify their own land and coordinate it with water and climate. Water management includes all aspects of using water as needed, avoiding water wastage, watering crops without watering the soil, i.e. watering according to the selection of crops, discipline in water use. Water management is not only the management of flood water but rain water management should also be considered. For this, rainwater harvesting, soil and water conservation, construction of small dams etc. are included. Therefore, the underground water reserves can be increased and its proper utilization can be done for agriculture. Water can be conserved by reducing the loss of water through evaporation using various covers.

Key words: Irrigation, Agriculture, Watershed, five-year plan

1. INTRODUCTION

'Agriculture in India is dependent on the vagaries of seasonal rainfall. To overcome this, various schemes to facilitate water supply to agriculture were in operation since ancient times. Lakes and ponds are mentioned in Smriti Vad. Maya. All the Smritikars have challenged that human beings should regularly do desirable work like digging wells, creating lakes, canals etc. According to economist Kautilya, the agricultural sector of the state should not be dependent on rainfall alone but should be irrigated which depends on state irrigation. He was of the opinion that the state is prosperous. During the reign of Krishnaraja III of the Rashtrakuta dynasty, a system of drinking water appears to have been implemented near the village of Jag Tung Sarovar in the city of Kandahar, in the present taluka of Kandahar. In the city of Chhatrapati Sambhajinagar, drinking water was provided to 52 settlements in the city through canals and taps in the 17th and 18th centuries by collecting ground water from the foothills of the surrounding hills. Evidence of them is still visible. Among them, Begampura Thatte Canal, Baijipura Canal, Chhavni Canal, Nahar e Amber, Shahanurmia Canal, Panchakki Canal, are functioning even today in dilapidated condition. The chain of lakes in Vidarbha was formed during the period of the Gaud kingdom. About 10,000 pounds were built by the Kohli caste in the districts of Chandrapur, Gadchiroli, Bhandara and Nagpur 300 to 350 years ago in the valley of Wainga. Its use can be seen to some extent even today.' (Second Irrigation Commission: 1999:7)

"Water has been given importance in our country for a long time. Even in Mahabharata there is a mention of the creation of a lake. In the past, efforts were made by the king and the citizens to maintain the cleanliness of the ponds and rivers. Even during the British era, large lakes were created and their management was done properly. Mahatma Phule, Rajarshi Shahu Maharaj, Dr. Babasaheb Ambedkar, Mahatma Gandhi, Baba Adhav, Anna Hazare put forward their thoughts on the water issue and tried to solve the water issue. Created awareness among people by convincing them about the importance of water. After India's independence, the government has implemented many development schemes related to drinking water and sanitation. It is found that provision has been made regarding drinking water in every five-year plan. Water development works like ponds, farms, watershed development projects, irrigation projects, dams are being carried out on a large scale. The Government of India has set up various commissions to study the water issue, the commissions are as follows. (Second Irrigation Commission: 1999:10)

First Irrigation Commission (1909)

Adding irrigation to agriculture leads to overall productivity increase, crop protection and economic benefits. The First Irrigation Commission was set up on 13 September 1909 to study the results of the first country-wide comprehensive inquiry in India to determine further irrigation policies and procedures for the country. The terms of reference of the commission included a provision to study the following matters. To ensure utilization / impact of irrigation projects to increase agricultural production and enhance land productivity. To review the irrigation schemes at the state level from the point of view of production increase, drought protection and economic development. To take stock of irrigation

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expansion at the state level and suggest solutions for the same. The commission explained in its report that although the government has limited capital investment to increase production and focus on agriculture where human life and its safety are important. There can be no cost limit. And only if the capital of the project is not more than thirty times the revenue or the return is expected to be only 3 percent of the capital budget should sanction protected works be granted.' (Second Irrigation Commission: 1999:10.12)

National Irrigation Commission (1972)

This Commission submitted its report to the Central Government on 30 March 1972. Some of the key recommendations in the report are as follows.

River basins should be used as natural units for planning water resources.

First priority should be given to domestic water use. Surface and underground water should be used jointly.

The cropping system should be decided by the Department of Agriculture and the Department of Irrigation after exchanging views.

Water availability in drought prone areas should be increased through carry over.

A comprehensive plan for benefit sector development should be prepared and there should be a separate benefit sector mechanism for each project.

Immediate attention should be given to the repair and maintenance of the lake in Maharashtra and adequate funds should be made available for its renovation.

In the state where the ground water level is deep. Pazar lake, lake dam should be constructed in that area.

There is no problem in maintaining the benefit-loss ratio of large, medium, irrigation projects in drought-prone areas up to 1. (National Irrigation Commission: 1972:12)

Second Irrigation Commission (1995)

Hon. Dr. Chitale come Maharashtra Government constituted the second Irrigation Commission in December 1995 under the chairmanship of Chitale. This commission studied and submitted its report to the Maharashtra government in 1999. A total of 329 recommendations have been suggested by this commission. The following recommendations have been made regarding drinking water.

Sub-basins which are likely to consume more water than available. While planning such sub-basins, drinking provision should be considered first and then irrigation water should be planned. While planning drinking water in villages, attention should be paid to the needs and management of livestock. The Taluka Panchayat Samiti should be entrusted with the responsibility of considering all the water available to the village and taking action to determine which source to which extent and how to regulate it. The economic future of rural water supply schemes should be linked to the production system, employment system and permanent income system in rural life. Village development program through public awareness, public participation and employment guarantee scheme should be undertaken as an important component of rural water supply. The gap between urban water supply and rural water supply should be reduced. There is a need to encourage more initiatives to harvest rainwater at home and use it throughout the year. River-wise conscious people's organizations should be formed immediately to prevent pollution caused by sewage being discharged into the river without any treatment. Social organizations should take initiative and encourage women organizations in this regard by establishing women's organizations in rural areas and handing over the management of tap schemes to them.

Considering the scarcity of water, plans to treat the waste water and make it available for irrigation again should be implemented by the Maharashtra Life Authority and the Maharashtra Pollution Control Board and the Irrigation Department in coordination. Such recommendations have been made by another Irrigation Commission.' (National Irrigation Commission: 1972:12)

White Paper (1995):

As the seriousness of the problem did not diminish even after huge investment in rural and urban areas to solve the problem of drinking water, the Government of Maharashtra issued a White Paper on Drinking Water Supply Program on July 26, 1995 to adopt a comprehensive and universal policy. Its main policy is as follows.

A long-term solution plan is needed to strengthen water sources and enhance groundwater recharge. Population growth is the root cause of drinking water problem and needs to be controlled. The availability of surface water is also limited and there is an urgent need to use it properly. It is necessary to understand land and water resources as social assets and use them efficiently for drinking and crops. Pinya's schemes for villages further populated should not be based on ground-water sources. Water should be made available for drinking on priority basis through irrigation projects. There is a need to prepare district and taluk wise water plans keeping in mind the total availability of water and its use for various purposes in the future. While the new irrigation projects are in the planning stage, after determining the demand

of drinking water and industries, irrigation should be planned from the remaining water and canal irrigation system should be developed based on that amount of water. Irrigation projects in which more than 10 percent of the water has to be used for non-irrigation purposes. In that project the non-irrigation water use concerned should share the cost of the dam with the Corporation. For the safety of drinking water / potable sources, the participation of the general public in the integrated program of water conservation and conservation and in the decision-making process.

2. CONCLUSION

There are many natural, administrative and social complexities involved in the planning, implementation, maintenance and repair of drinking water programmes. Therefore, there is a need for excellent management in their planning and implementation.

In order to implement the water supply program in an integrated and integrated manner, there is a need to create a new separate drinking water supply department to handle both the rural and urban areas of the state together. (Government of Maharashtra: 1995:12)

3. REFERENCE

[1] Ayre B.L. (2015): Water Management Techniques for Crops, Godwa Agricultural Publications, Pune.
[2] Oxford Advance Dictionary (1955)
[3] Bhandarkar K.M. (2010): Environmental Education, Pune. Nitya Prakashan Pune.
[4] Limaye, Daji (2017): Sulabh Hydrogeology for All, Sakal Publications, Pune.
[5] Lovekar, Shashikanth (2012): Jal Chintinika, Navta Prakashan Nanded.
[6] Suryavanshi Arun (2000): Groundwater Recharge, Saket Publications, Aurangabad.
[7] Sawadi A.B. (2008): The Mega State Maharashtra, Nirali Prakashan, Pune,
[8] https://vishwakosh. marathi.gov.in/Duskal
[9] 'Maharashtra Water and Irrigation Commission: 1999:
[10] Second Irrigation Commission (1999): Maharashtra Government Water and Irrigation Commission Report.
[11] National Irrigation Commission:1972
[12] Government of Maharashtra, White Paper :1995
[13] Government of Maharashtra:1999:856)