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# Upparahalla Project under KAWAD and People's Participation

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**Abstract:**

For the concept of Sustainable Development, preservation of water is a very important component. Water resources are also a comprehensive natural resource with a variety of use values. They can meet the water needs of many segments, including the economy, resources, science and technology, ecosystems, and the environment. With the help of the British Government (DFID), the Government of Karnataka implemented the Upparahalla Project through the Karnataka Watershed Development Project (KAWAD). The Government spent around Rs. 84 crores on the watershed development project in three districts. This study analyses the impact of the scheme on the area covered under the project, people's participation, awareness level and the results of the scheme. The findings indicate mismanagement of the project in the area. After the project was completed, people neglected the work, which ultimately led to the loss of utilised funds. The paper also draws the constraints and suggests alternatives for effective implementation of future projects.

**Keywords:** Water, Watershed, Ecosystems, Upparahalla, DFID, KAWAD, semi-arid zone. JEL Classification: Q25, Q15, Q13, Q57, Q24, H41.

## 1. Introduction,

After implementing the industrial policy of 1991, India has grown rapidly among the developing nations. But India's development is constrained by limited resources, i.e. capital, skilled labour, modern technology, water, etc. If we take water as a development component, India's position is very alarming. Monsoon variations cause havoc for Indian agriculture. To reduce the impact of monsoon variations, the Government of India introduced the National Watershed Development Program for Rainfed Areas (NWDPRA) in 1990 under the Ministry of Agriculture. Most of the Indian population earns a living from agriculture. According to recent estimates, dependence on agriculture has come down. But still, more than 50% of the people are in agriculture. It is very important to improve the condition of those people.

Karnataka is one of the developed states in India, situated in the south-west part of the country. The state has more than 70% of its land under the semi-arid zone. This area receives only 400 mm to 750 mm of rainfall in a year, with periodic droughts, soil erosion, erratic rainfall, and depleting groundwater. Due to the water shortfall in the state, first, farmers are unable to produce more than one crop in a year; secondly, land productivity also decreases. To remove these constraints, the Government

of Karnataka initiated many programs with the financial assistance of the Government of India. Government of Karnataka established the Dry Land Development Board (DLDB) in the eighties, and it was termed the "Karnataka Model" of watershed development.

Karnataka State is one of the priority states of the Department for International Development (DFID). In 1994, DFID decided to launch a project on rainfed agriculture in collaboration with the Government of Karnataka in semi-arid and drought-prone regions of the State. The new project was known as the Karnataka Watershed Development Project (KAWAD).

KAWAD implemented livelihood development programs in three watersheds: Chinnahagari watershed in Molakalmuru taluk of Chitradurga district, Upparahalla watershed in Kudligi taluk of Bellary district, and Doddahalla watershed in Indi taluk of Bijapur district. These watersheds were selected on various criteria, including poverty, drought occurrence, a high percentage of women-headed households, a high percentage of landless labourers, and a high percentage of small and marginal farmers. The project covers 62 villages in 13 Gram Panchayats and one town Panchayat in the above three districts.

## 2. Review of Literature,

There is a flood of literature regarding watershed projects all over the world. Some of the major findings are stated here.

- **C. Batchelor, et.al.** analysed the watershed projects under KAWAD. According to their findings, the Upparahalla area has only 6% of rainfall saved through the tanks and other means. Groundwater extraction is increasing rapidly, due to which shallow wells have failed, and some borewells have also failed.
- **Planning Board's Karnataka Agriculture & Rural Development Vision 2020**. In this report, the Government of Karnataka intended to improve the productive potentials of selected watersheds, enhancing agricultural productivity, alleviating poverty, generating sustainable employment and employment opportunities through skill development/training programs.
- **Chuntang Wang, et.al.** In their paper, they give a brief introduction to the technology of comprehensive utilisation of water resources in small watersheds.
- **Junguo Liu, et.al.** In their paper, they provide an overview of China's water conservancy development and illustrate the socio-economic, environmental, and ecological impacts. A narrative of attitude changes of the central government towards water conservancy, as well as key measures since the 1950s, is presented

**Objectives**

1) To assess the people's participation in the watershed project
2) To identify the loopholes and assess the project.
3) To suggest alternative measures to strengthen the watershed projects.

**Hypothesis**

1) The successes of watershed projects depend upon the highest degree of people's participation.

**Methodology**

To fulfil the above objectives, the researcher conducted a field survey in Byluthumbaraguddi village in the Kudligi taluk of Bellary district. Over 30 check dams and 10 borewells were observed to assess people's participation and the impact on the success of watershed project programs. Also interviewed

**Major Findings**

During the visit, 30 check dams were observed in the targeted area. Out of the total 30 selected check dams, only five are in good condition, and the remaining are defunct, damaged, or ineffective, indicating negligence by the people in the survey area. To assess the effectiveness of the watershed project, we visited 10 bore wells situated around the check dams. From our interaction with the farmers in the area, we learned that in the rainy season the bore wells function and farmers get water from them, but in the summer season they are unable to get water from the same bore wells. The farmers also informed us that when the check dams were in good condition, the groundwater level was good. The groundwater level deteriorated since the check dams are damaged and ineffective. One of the main reasons for this is the lack of people's participation in maintaining the check dams in the study area, showing that the null hypothesis is rejected. They know very well about the importance of the check dams. Still, we find their apathy towards the maintenance of check dams and watershed projects. Here, the government is also responsible for the ineffectiveness of the check dams. The government must monitor the check dams, where lakhs of rupees are spent. Some of the pictures showing effective and defective check dams are given below.


Picture – 1: Check dam in the Area (good one)


Picture – 2: Check dam in the Area (damaged)


Picture – 3: Borewell in the area.

**Suggestions**

Here are some alternatives to the present system.

a) For the success of the project, we need people's participation. Knowingly, they neglected the check dams. Hence, we have to refresh their knowledge.
b) Effective implementation and monitoring of watershed practices is essential and requires technical personnel.
c) The number of participatory projects must increase. Through this, people take responsibility and feel responsible.
d) The Study of Environmental Science must be made compulsory by the UGC. In most colleges, teachers do it half-heartedly. They must think about the future of our kids.
e) We must give much importance to Rainwater harvesting activities, and educating the folks is very important.

**Conclusion**

From the above discussion, we may conclude that the Upparahalla Project failed due to the lack of people's participation. After implementing this project, the groundwater level increased. But due to the lack of continuous monitoring of the check dams, they were destroyed and damaged. The people picked the stones used for the check dams for the basements of their buildings. If we educate them effectively, we can control this mismanagement.

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