



Information dissemination for sustainable natural resource management towards climate resilience:

Evidences from Sujala-III watershed project, Karnataka

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Background

Science based watershed planning and implementation under World Bank funded Sujala-III project is a next generation watershed management approach recently implemented in Karnataka state. The project was designed to achieve a paradigm shift in watershed development providing use of modern geo-spatial tools and techniques.

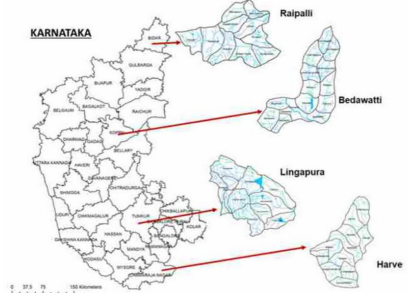
Karnataka is third in terms of the area affected by land degradation (about 41% of the total geographical area). Meanwhile, the new science based approach in watershed planning and implementation is an vital important to reverse land degradation and mitigate climate impacts. Therefore, the study was conducted with an assumption that better scientific information dissemination leads to greater adoption of climate resilient practices and help farmers to manage natural resources in a sustainable manner.

Objectives

The specific objective of the study is to develop a framework to understand how climate change adoption and mitigation information is flowing among watershed farmers. The present study assessed type, source, spread effect and utility of information and its influence on adoption of site-specific watershed measures.

Methodology

Fig.1: Sampling design and study area



A sample of 720 farmers responses were collected in 12 micro-watersheds and within micro-watershed, 60 farmers were drawn, 20 each in upper, middle and lower reaches.

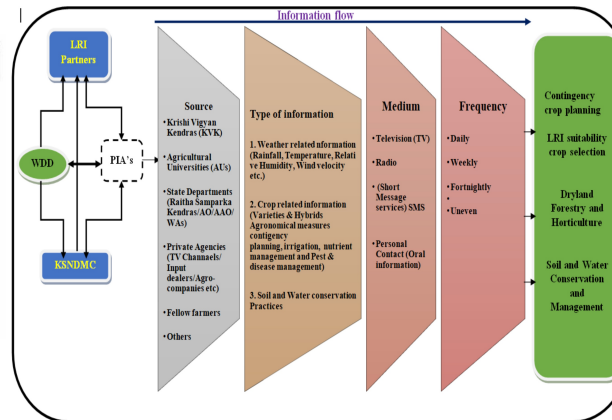


Fig.2: Conceptual framework of the study

Results and Discussion

- ❖ The results highlights that 80% of the watershed farmers received weather forecasting information followed by 66%, crop related and 59%, soil and water conservation information regularly during project period.
- ❖ Project Implementing Agencies are the major source for soil and water conservation information (69.1%), crop (55.2%) and weather related information (45%).

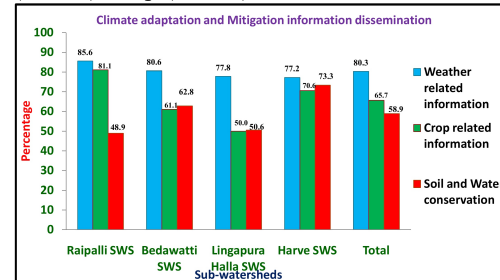


Fig.3 Type of climate adaptation and mitigation information disseminated

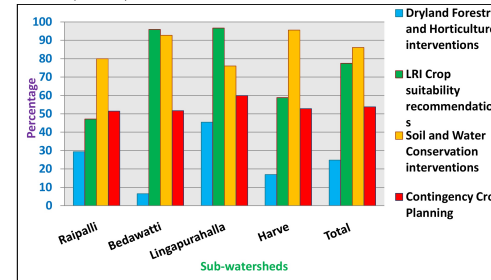


Fig. 4: Adoption of Climate Adaptation and Mitigation interventions

- ❖ Spread effect (farmer-farmer dissemination) also recorded and it varies from 15-22% followed by sources like KVK and private agencies.
- ❖ Study found that among those received information nearly 86% of farmers adopted soil and water conservation measures, 77.5% adopted site-specific crop suitability recommendations and 53% adopted contingency planning and 24.8% adopted dryland horticulture in the watersheds.

Conclusion

- Adoption of soil and water conservation interventions were extensively deployed to equip watershed area against climate change impacts.
- Growing suitable crops as per the capability of the land saves resources and avoids risk of crop failure and financial loss.
- Higher adoption of contingency planning to deal with situations of capricious climatic conditions prevail over the region.
- Dryland horticulture and Agro-forestry are considered as climate change mitigation measures as these enterprises run with little external inputs.

Acknowledgement

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