

GGBP Case Study Series

# Monitoring the Sujala Watershed Management and Poverty Alleviation Project in India

Related Chapter: [Monitoring and evaluation](#)

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Country: [India](#)

Sector(s): [Water](#)

Key words: [Community](#), [poverty](#), [monitoring](#), [water](#)

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The Watershed Management and Poverty Alleviation project in Karnataka, India (known as the Sujala Project), was characterized by an intensely inclusive and flexible monitoring and evaluation (M&E) process, which led to the project's overall greater effectiveness, efficiency, and robustness. In a review of the program, the World Bank found that many of the project's approaches had been incorporated into India's national watershed policy guidelines (World Bank, 2013). Reviews of the program suggest that the M&E process played a significant role in the program's success and opportunities for scale-up (Raju and Dhananjaya, 2010).

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## Context

The Karnataka watershed is a semi-arid zone subject to periodic droughts, severe soil erosion, erratic rainfall, and depleting groundwater. The primary livelihood in the region is rain-fed agriculture, but yields are two

to five times less than optimal (Raju and Dhananjaya, 2010). From 2001 to 2009 the World Bank invested USD100 million into the Watershed Management and Poverty Alleviation project (known as the Sujala project) with goals of alleviating poverty, increasing productivity, and improving environmental management (World Bank, 2012). The program focused on

soil and water conservation and sustainable resource use, and was implemented in collaboration with the Karnataka government's Watershed Development Department and 60 local non-governmental organizations.

The program undertook a combination of capacity building, development planning, and data provision to help both technical experts and local community members to make improved agriculture and natural resource decisions.

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## Approach

Monitoring and evaluation (M&E) was a key facet of the program, established at the earliest stages of project development. It went beyond the common approach of mainly assessing inputs or conducting only a final evaluation. Instead it aimed to develop an information management system to provide timely and appropriate information to project managers and beneficiaries.

As with the overall program approach, the M&E system involved extensive community engagement in developing indicators, collecting data, and reviewing results.

The M&E system was developed by Antrix Corporation Limited, part of the Indian Space Research Organization (Raju and Dhananjaya, 2010). The system combined remote-sensing data with on-the-ground monitoring, including a household survey with baseline and control group, focus group discussions, participatory observations, thematic studies, and case studies (World Bank, 2013). It measured quantitative and qualitative indicators before, during, and at the end of the project, as well as after the

project's completion. It also included a systematic database that integrated large volumes of data monitoring the project's physical and financial progress and made the information accessible to communities. (See Figure 1.)

The M&E data were collected and shared through frequent audio-conferencing and monitoring reports between the project partners and were used for ongoing project decisions. For example, when data showed that a high proportion of project funds were flowing to large-scale farmers for soil and water works, the project was adjusted to provide revolving funds for a self-help group targeting poorer farmers, a move that resulted in a sharper focus for the project and improved opportunities for women and the landless – and greater cost-efficiency in the soil and water conservation works.

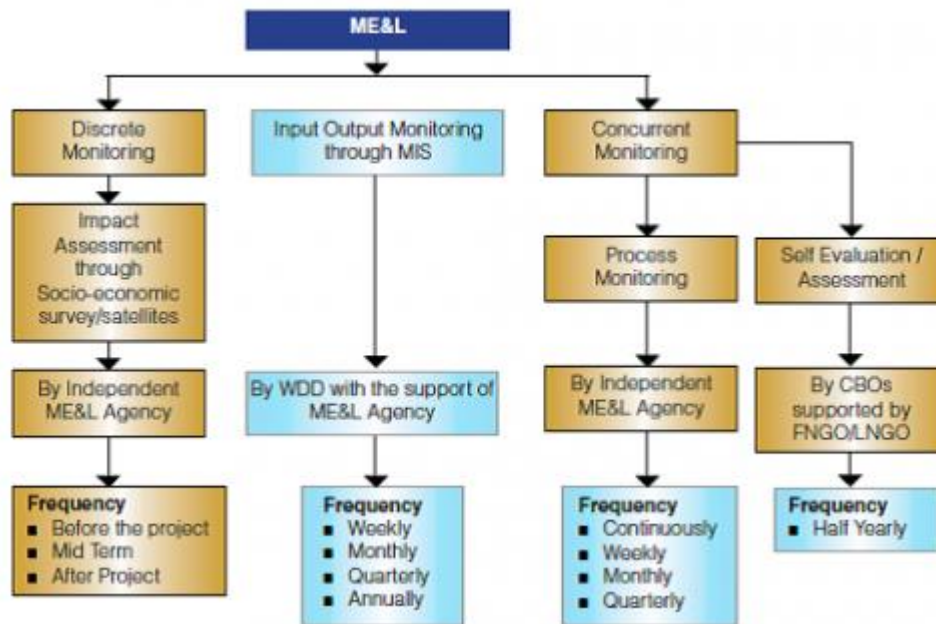
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## Outcomes

A review by the World Bank Independent Evaluation Group found that data from the M&E system “had a significant impact on improving project implementation”(World Bank, 2013).

Inclusive, transparent, ongoing monitoring allowed managers to adjust operations and address problems. Sharing monitoring data with the beneficiaries throughout the project helped to foster agreement on the priority activities and the locations for interventions. A reporting structure that employed an independent functioning agency and a grassroots presence for giving independent and unbiased feedback fostered trust and accountability leading to greater impact.

**Figure 1.** Sujala Project monitoring, evaluation, and learning (ME&L) process



Source: Raju and Dhananjaya, 2010

Overall, the program reached 230,000 direct beneficiaries, and achieved the following results:

- Overall increase in agricultural yield in the range of 19-25 percent;
- Increase in household incomes of small and marginal farmers of 40 percent;
- Increased employment for the poorest and landless;
- Improved resilience from diversified cropping;
- Decreased runoff of up to 21 cubic meters per hectare, suggesting an increase in infiltration and reduction in erosion (Raju and Dhananjaya, 2011; World Bank Group, 2013).

## Lessons

Including the local communities throughout the project helped to foster agreement on the program priorities and activities, and ultimately led to greater sustainable impact of the program (Raju and Dhananjaya, 2010). Rigorous and consistent performance monitoring methods enabled planners to maintain transparency, enforce accountability, and apply mid-course corrections to achieve greater impact.

Including stakeholders throughout the process, responding to stakeholders' needs and input, and building credibility along the way made the program more robust over the long term, to the extent that an additional phase and expansion of the program was initiated (Government of Karnataka, 2012).

Additionally, the flexibility of the program that enabled it to respond to M&E results at various stages throughout the lifecycle led to greater efficiency; for example, a mid-term review led to a decision to shift funding into providing revolving funds for self-help groups, which resulted in a sharper focus on addressing poverty and improving opportunities for women and the landless (World Bank Group, 2013). Similarly, monitoring data enabled the program to achieve greater cost-efficiency in soil and water conservation interventions.

The M&E system was not without challenges. The intensively inclusive process required significant time and effort by local managers and beneficiaries – an aspect that does not appear to have been captured in the overall cost estimate. For example, an official from the central district watershed office stated “The frequent audio-conferencing backed by regular [results] reports was very useful in monitoring progress. It helped keep all of us on our toes throughout the duration of the project. Of course, this was useful as a management tool, but I would not like to be monitored like this for other watershed activities that we do on a regular basis. It is too intense” (Raju and Dhananjaya, 2010).

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## Further Information

World Bank Project Page:

<http://ieg.worldbankgroup.org/webpage/karnataka-a-watershed-sujala-project>

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## References

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