Presentation on Innovative Practices in Karnataka State

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Innovations are presented under the following headings

A. Brief description of the innovative practice
B. Problems/Issue that necessitated the initiative
C. Description of the outcome of the Innovative practices
D. Efforts taken for up-scaling/replication at other sites-Experience sharing
E. Learning regarding process restructuring/re-organisation
Innovative practices/activities

1. Large scale up-to-date Thematic layers for generating Treatment Plans (Planning component)
2. Capacity building through SATCOM (Capacity building component)
3. Spillway outlet (Soil and Moisture Conservation component)
4. High density plantation – Mango and other crops (Horticulture Component)
5. An Innovative IGA – Amari Flower (*Cassia auriculata*) Tea (Income Generation Activity component)
6. Activities promoting Animal Health – VBTs, AHCs, Fodder mini kits, silage pits and cattle sheds/sheep pens (Animal Husbandry component)
1. Brief description of the innovative practice:
Large scale up-to-date Thematic layers for generating Treatment Plans (Planning)

Problems/Issue that necessitated the initiative.

• The Watersheds proposed for treatment under IWMP, more often termed as Sub-watersheds, are around 4,000 to 5,000 ha in area.

• The basic concept is that we should able to treat the land either parcel wise or cadastral boundary wise or survey number wise. Such treatment calls for detailed up-to-date large scale thematic maps equivalent to village cadastral map scale of around 1:4,000 to 1:7,000.

• But the existing thematic maps like soils, ground water, drainage system, land use are of either smaller scale (say 1:50,000 or 1:25,000) or they are not up-to-date as on today.

• The farmer wise (or survey number wise) identification of land parcels is not possible on such small scale maps.
Thematic Layers

- Road
- Parcel
- Water
- Drain
- Soil
- LU/LC

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Description of the outcome of the Innovative practices.

• The Dept. of Watershed Development has outsourced the generation of large scale thematic layers to the Karnataka State Remote Sensing Applications Center (KSRSAC), another State Govt. organization.

• The spatial thematic layers comprising of soils, surface water and drainage system, ground water potential, slope and current land use of each of the selected sub-watersheds are generated using recent high resolution satellite data and ground survey.

• They are prepared in digital form so that the output can be generated in the desired scale. These maps have become handy to the team generating the DPR and Net Plan.

• These maps are shown to the stakeholders, discussed with them and then arrived at the most appropriate treatment plan for the parcel.

• Such maps are also useful to monitor the progress of implementation with time.
Efforts taken for up-scaling/replication at other sites - Experience sharing.

- Since KSRSAC has sufficient infrastructure to prepare such thematic layers for proposed watersheds in the subsequent Batches, they may be entrusted with the task in future.
- However it would be better if a core group of scientists is organised at WDD to not only follow-up the job at KSRSAC but also look into some of the quality aspects.

Learning regarding process restructuring/re-organisation

- The process of generation of thematic maps using both ground input and modern technologies of remote sensing, GPS and IT, and its utilization for treatment plans is a unique experience and learning.
- The availability of better resolution satellite data and its use using recent image processing and GIS techniques should further enhance the accuracy and content of the such resource layers which in turn contribute improved treatment plans.
2. Brief description of the innovative practice:
Capacity building through **SATCOM (Capacity Building)**

Problems/Issue that necessitated the initiative.

- IWMP being a community based/driven programme, it was necessary to reach out to the various stakeholders in the community, mainly the Executive Committees (EC) who are primarily involved in the implementation.
- There are 330 ECs in batch-I and 375 ECs in batch-II projects. Each EC has 11-15 members.
- When the SLNA decided to reach out to all the ECs at once, it was faced with problem of suitable technology.
- SATCOM was the only technology for such a large scale capacity building programme, without much inconvenience to the EC members, as SATCOM facility extends upto taluk level.
Description of the outcome of the Innovative practices

• It brought together majority of the project stakeholders viz. officers of the Head office, officers and staff of field offices, ECs (consisting of GP, UG and SHG members)

• Bridging the gap between policy makers and the community.

• It has created sense of belongingness & importance of the project.

• Experience Sharing among the ECs

• Improvement in efficacy of implementation
Efforts taken for up-scaling/replication at other sites-
Experience sharing.

• To improve the efficacy, through frequent SATCOM trainings

Learning regarding process restructuring/re-organisation

• SATCOM is an effective and useful technological option to reach out larger stakeholders

• Number of SATCOM trainings to be increased – Decrease the number of regular trainings at village level

• It is an unique learning experience to public representatives & CBOs

• Needs improved infrastructure
3. Brief Description of Innovative practice: Spillway outlet (Soil and Moisture Conservation)

- Locally called as “dundavarthi”, - a traditional practice in deep black soil for levelling the field.

- It needs inter-plot rain harvesting bunds and the other is the construction of ‘spillway outlet‘ at the lowest level.
Description of the outcome of the Innovative practices:

- Prevents cracking of bunds and soil erosion in black cotton soils.
- Improves the soil productivity.

Efforts taken for up-scaling/replication at other sites:

- Nearly 10% of the farmers have adopted in Vijayapura & Bagalkot districts.

Learning regarding process restructuring/re-organisation:

- The method is useful in black cotton soils area.
5. Brief description of the innovative practices: An Innovative IGA – Amari Flower (*Cassia auriculata*) Tea (Income Generation Activity component)

- The tea prepared by the Amari flower (*Cassia auriculata*) with high medicinal properties is used for treating people with diabetes.
- The UAS - Raichur trained 8 SHGs in Hattinala sub watershed regarding the harvest, process and its usage.
- The SHG members who are relatively free from agricultural activities, i.e., after the Kharif, have taken up the collection of these flowers. The flowers along with the leaves is collected and washed twice before drying for 4-5 days.
Problems/Issue that necessitated the initiative:

• Kota Village in Lingsugur taluk, Raichur District has low annual rainfall and most of the villagers are landless agricultural labourers.

• Due to this, the NGO in the area has taken up a proactive step in initiating an innovative IGA. The dry flowers are used in the preparation of special herbal tea with unique taste and medicinal values.

Outcome of the Innovative practices:

• The landless labourers are engaged during the lean period—Additional employment generation
Amari plant-
Cassia auriculata
Processing of Amari plant
Efforts taken for up-scaling/replication at other sites—Experience sharing.

- Up-scaling possibility exists by extending the plantations in such other dry rainfed area.

Learning regarding process restructuring/re-organisation.

- Further process restructuring/re-organisation need to be done, as a research problem, in consultation with the Agriculture Universities.
7. Brief description of the innovative practice: Bund Sowing of Vegetable and field crops

Ridge gourd

Castor

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• During the first year of bunding, the bunds are to be seeded with vegetable & other field crops.

Problems/Issue that necessitated the initiative
• To prevent the farmers from levelling the bund.
Description of the outcome of the Innovative practices

- Strengthening of bunds
- Improves nutrition in the family
- Provides additional Employment and income to the farmers
- Bund plants may act as trap crops in some cases such as castor and red gram

**Efforts taken for up-scaling/replication at other sites- Experience sharing.**

- Now it has become a regular practice in the State

**Learning regarding process restructuring/re-organisation**

- The activity was a complete loop from conservation to better production with an equity angle built into it. The activity was wholeheartedly accepted by the farmers. There was no need for process restructuring/re-organisation
# Involvement of Agriculture University in Impact Assessment

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<th>Name of the University</th>
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<td>UAS, Bengaluru, Dharwad, Raichur and Shivamogga</td>
<td>1. Model watershed studies have been undertaken in 26 representative watersheds of 26 districts of Karnataka by the State Agriculture and Horticulture Universities under IWMP to understand the impact of pre and post watershed management from 2011 to 2014 in terms of silt loss, NPK loss and hydrological monitoring (Runoff, Ground water level).</td>
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<th>Total silt loss per hectare (tons)</th>
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<th>Post treatment</th>
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