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Theme : Management of Water Resources

Sub Theme - The Water sector; successes, failure and constraints.

Abstract : Sustainable enterprise development, by indigenous women groups – building up from effective water management.

Presentation by:

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- **Introduction:**

  The tribal/indigenous population of the globe is most vulnerable community, while facing the challenges of climate change.
  Further their women are still more vulnerable due to inherent gender related weakness.
  In this context livelihood system of tribal women also faces question mark on sustainability issue.
  Helping the indigenous women groups in achieving sustainable livelihood path – is a big challenge.
  The effort of evolving a "model for enterprise based livelihood system – with effective water management support, attempts to make tribal livelihood resilient to climate change strategy for tribal livelihood.
  The learning guide us for future.
  The whole intervention also attempts to make tribal (particularly the female) livelihood resilient to climate change threats.

Methods and material:

- **The villages with high tribal women groups concentrations were chosen; where design interventions of "model" were carried out. As the livelihood of indigenous community revolves around; farming/livestock rearing and the same is dependent upon seasonal rains.**
- **Jharkhand being rainfed state; most of its indigenous people village - suffer from lack of irrigation facility. Hence, "model" works on premise that augmenting irrigation can alone bring substantial surplus in agriculture production of tribal women.**
- **Thus, the basic building block of "model" has been developing small and varied irrigation structures which can tap/store water; and when rains are over and the water is transported to fields through pumps/pipes.**
- **This result in better production of post rain crops – resulting in surplus agri-produce.**

Details of the model:

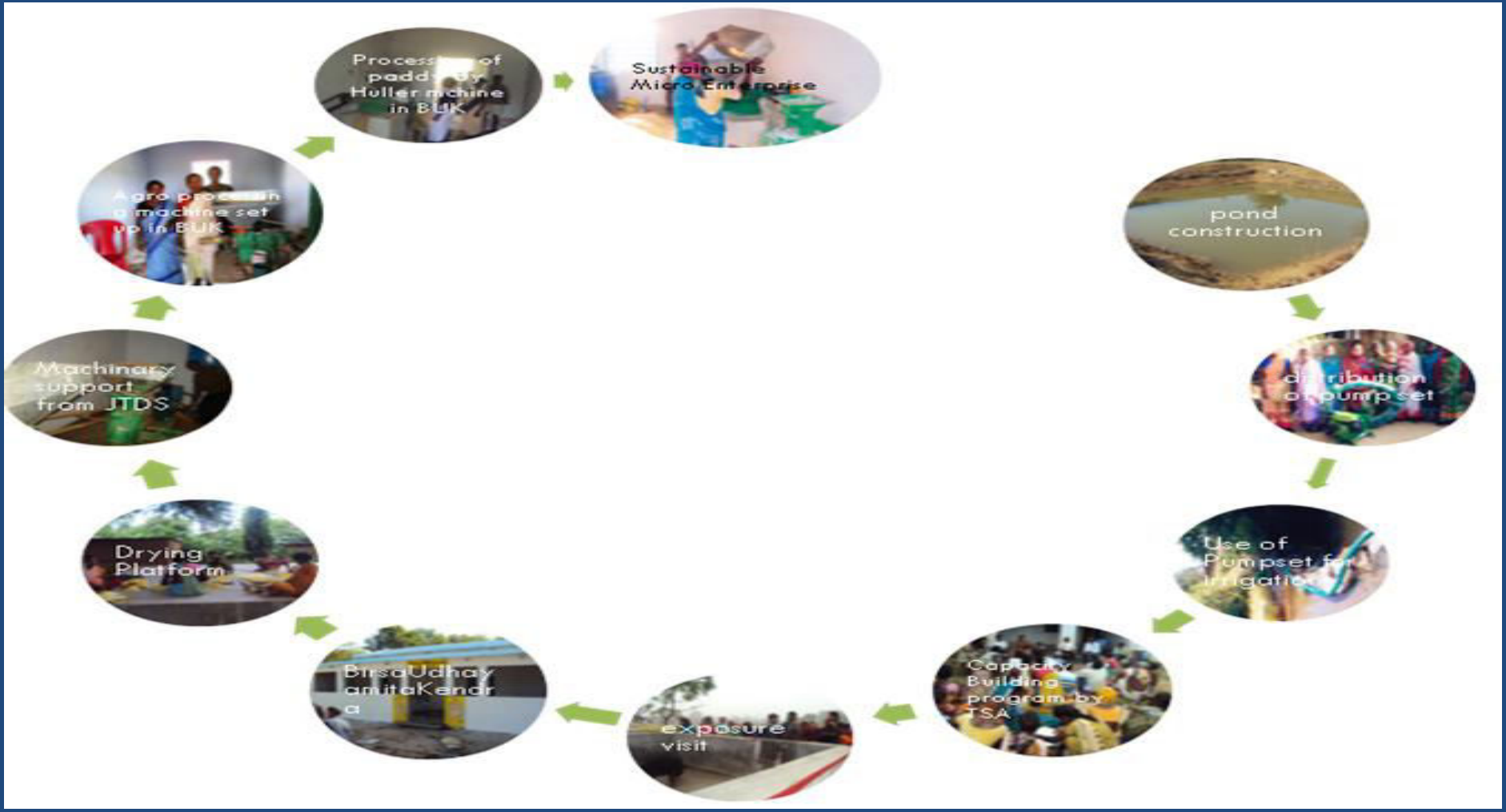
- **The model has developed on the basic premise that inadequate irrigation, suboptimal inputs is the root cause of low productivity of agricultural produces. To overcome this problem**

- **Additional structures have been planned/constructed.**

- **For facilitating the irrigation increased area; pump sets were distributed to the tribal farmers on subsidized rate.**
- **Crop advisory given to tribal farmers on regular basis.**
- **For identifying the appropriate agricultural produce and training and motivational work to the beneficiaries" Technical Support Agency" has been engaged.**
- **Exposure visits have been conducted for better understanding of technical and financial know how of establishing micro enterprises.**
- **For storage and processing of primary agricultural/forest produces ware house cum Work shed and drying platform (Birsa Uddyamita Kendra or Birsa Enterprise Centre) have been built.**
- **Machines (like huller, Atta chakki, oil expeller etc) have been installed by tribal women.**
- **Micro enterprise activities based on paddy processing, grinding of wheat/Chickpea etc. have been established in 74 villages and successfully run by the tribal women SHGs.**

Result and discussion

Flow chart of the model:



From the above flow chart, it is obvious that the basic building block of the "model" is simple but effective in sustainable forest/water conservation and management interventions; result in higher surplus; which can be processed for value addition and then its marketing.

- The additional irrigation facility created, has resulted in revolutionary impact in overall productivity of villages and better income opportunity.
- Further, as the whole “Value Chain” has been touched in systematic manner; thus making the “enterprise model” quite sustainable.
- The resultant surplus has been attempted to be processed in (small work sheds constructed in each village – named enterprise centre), using small – scale machineries – operated by tribal women groups; and also the produce is marketed, within or in nearby villages. Thus using local resources, local skill and local market – makes it quite sustainable.
- Further locally constructed water structure and local use of its water as the key input – has led to its success.
- The model highlight – by developing small water infrastructure and effective use of its water for farming as single input has drastic effect on outcome – i.e. farming and farming based enterprise of tribal women groups.

Details of villages and intervention

Sl. No.	Name of the District	No. of Villages covered	No. of irrigation structures created			No. of irrigation pumps/ pipes/ raingun etc. installed by groups	No. of village enterprise centers (work shed) constructed	Flour Mill/ Grinder installed	No. of Multipurpose drying platform constructed	No. of Primary agri-produce processing units– like Paddy huller, installed by self help groups
			Ponds/ Tank	Stone Bund	Irrigation Well					
1.	Ranchi	20	51	-	-	50	20	3	20	20
2.	Khunti	3	1	-	-	20	3	-	3	3
3.	East Singhbhum	14	35	-	-	43	14	2	14	14
4.	West Singhbhum	25	59	-	-	55	12	2	12	12
5.	Saraikela-Kharsawan	12	68	2	2	82	25	5	25	25
Total:-		74	214	2	2	250	74	12	74	74

Total indigenous person directly, benefitted – 4000
Total indigenous person indirectly, benefitted –37000

Salient outputs of “Model”

- In Ranchi district total 51 irrigation ponds have been built along with 20 “Birsa Enterprise Centre” in 20 villages.
- In Khunti district total 1 irrigation ponds have been built along with 3 “Birsa Enterprise Centre” in 3 villages.
- In East Singbhum district total 35 irrigation ponds have been built along with 14 “Birsa Enterprise Centre” in 14 villages.
- In West Singbhum district total 59 irrigation ponds have been built along with 25 “Birsa Enterprise Centre” in 25 villages.
- In Saraikela-Kharswan district total 68 irrigation ponds have been built along with 12 “Birsa Enterprise Centre” in 12 villages.

Further capacity building of tribal women Self Help Group members has been done engaging professional agencies on “Enterprise Development, marketing of agri/forest produce, technical operation of various value addition activities.

As a result of this scheme total women and men 4000 indigenous people has been benefited, directly where as 37000 indigenous person has been indirectly getting benefit of this scheme.

- **This "Model" has another very unique feature- where the power of planning, execution and monitoring lies with villagers itself.**

- **The money is directly transferred to village body (elected by the villager themselves), who themselves execute and manage the different components i.e. construction of ponds/tanks work shed, conservation and management of the forest, operation of Enterprise centre, marketing of value added products etc.**

- **This mechanism has resulted in strong ownership of all such schemes by villagers and resultant "sustainability".**

Conclusion

- **All 74 villages of Jharkhand, where this "model" has been given a try, gives a very encouraging response by way of empowerment of tribal women.**

- **The different component like forest conservation and management, water development/ management, agricultural development community building, community operation, community marketing link etc. has been highly appreciated by the tribal women groups.**

- **That is why the combination of it has resulted into many sustainable enterprises. The "model" has also created ripple effect in many surrounding other villages, around the intervention villages and thus new villages are also demanding such "model" in their area also.**

- **Tribal women of the area appreciate the role of "model" for nurturing and promoting their entrepreneurial skill/ knowledge and at the same time, they also give credit to the role of context specific "resource planning, augmentation and management" efforts; which provides holistic livelihood opportunities to tribal women communities in the most inaccessible locations of Jharkhand province; a poor developed part of India.**

- **This "model" also highlights the role of forest based resources; in combination with other natural resources like land, crop – when managed in judicious manner – offer the best solution to tribal populace (particularly the women) in the face of looming threat of climate change.**

- **Tribal villagers; particularly its women folk now appreciate that the "diverse options" for livelihood alone can help them in tackling the challenges of climate change threats.**

Thank you.