ROLE OF INSTITUTIONS AND INSTITUTIONAL CONSTRAINTS IN WATERSHED PROGRAMMES – A CASE STUDY OF KARKARA WATERSHED, HAZARIBAGH, JHARKHAND

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A watershed programme is a multi-disciplinary programme. Such programmes requires an integrated approach because they include components that are the responsibility of several agencies. Problems of land mismanagement occur on upland areas because of the inappropriate use of farming technology. Cultivation of steep slopes should be tolerated to some extent because of over population, but appropriate technology should be introduced to poor farmers who live in the remote areas of upland watershed. Bench technology and alley cropping, for example, can be introduced in a practical way on model farms which will encourage their adoption by upland farmers in expansion areas.

The capability of local organizations and institutions to plan and coordinate and watershed programmes needs to be improved to achieve the optimum level of goals and purposes of such appropriate technology programmes. The goals and purposes of watershed programme require components that involve more than one institution. Each institution or agency has to perform part of the integrated activity in accordance with its basic tasks and authorities

As the scope of work becomes broader and more complicated, it is not always possible or desirable to establish a single and complete authority over a watershed or an authority response for all watershed activities. Hence institutions play a very major role in watershed programmes.

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In order to study the role of organizations/institutions in watershed development schemes a study was undertaken to study institutions involved in progress and their constraints. in Karkara watershed, Hazaribagh., managed by DVC in Chhotanagpur plateau of Jharkand.

Institutional Building and constraints in Karkara watershed of Chhotanagpur Plateau of Jharkhand:

Institutional building

During the implementation of Karkara watershed management project a number of institutions had come up as per guidelines of GOI, which had laid special emphasis on public participation, joint working, maintenance mechanism, corporation fund etc. These institutions have come up at different levels from watershed to village level and even self-help groups is the same village. Again all these have come at different points of time and sequence.

In Karaka watershed, in pursuance to the guidelines the soil conservation department had set up a watershed development committee (WDC) for the whole of the watershed. It has three wings to sub serve three newly identified areas.

1) Irrigation and fisheries.

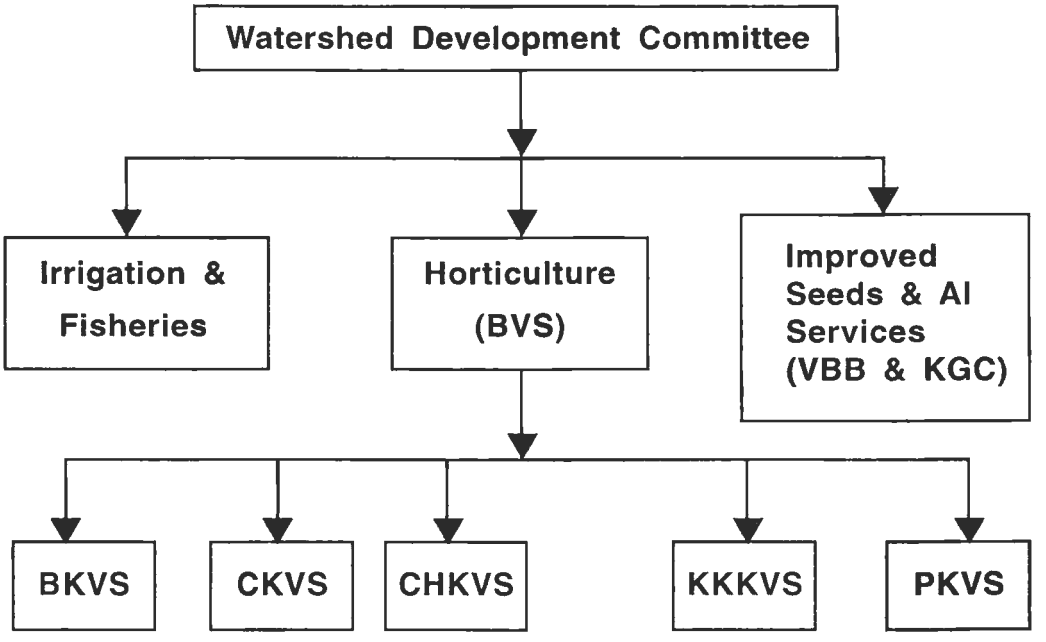
2) Horticulture & seed sale centre and AI Centres.

Functionally the village level Agricultural Development Committee (ADC) or Gramstar Krishi Vikas Samiti have been set-up at five villages such as Banha, Chourya, Chorha, Karkara and Papro. This has been so because lift irrigation systems have been set in operation in these villages Fig(1)

Corpus funds

For all watershed villages bank accounts have been opened at SBI Karma or Bank of India (BOI) at Mayurhakud. A contribution from members was collected and deposited. Wage money given to labourers for digging trenches and laying irrigation piper was also deposited in the same account.

Fig 1. Watershed and village level institutions set-up in Karakara Watershed



1. BKVS:	Bhagwani Vikas Samiti	Hortiucltural Development Committee
2. UB& KGC	Unnat Beej Bhandar & Krishi Garvardhan Committee	Improved seed Centre and Artificial Insemination service Centre
3. BKVS	Banah Krishi Vikas Samiti	Banah Agricultural Developmental Committee
4. CKVS	Chouriya Krishi Vikas Samiti	Chouriya Agril. Development Committee (CADC)
5. CHKVS	Chorah Krishi Vikas Samiti	Chorah Agril. Development Committee
6. PKVS	Parpo Krishi Vikas Samiti	Parpo Agril. Development Committee
7. JVK	Jalchhajan Vikas Samiti	Watershed Development Committee (WDC)

Mahila Mandal in Study area

The first Mahila Mandal, a women self help group was setup at village Mayurhund with the following objectives:

1. To act as a rural local micro-finance institution to meet the credit heads of families.
2. To act as a channel for developmental activities of varied nature by characterizing the funds or having a say on the developmental activities.
3. To act as a pressure group and
4. To intervene in the social and other village problems affecting the members.

In order to familiarize with the MMs, about 30 women and men from RWS were taken to neighbouring Champaran district and Puralia district of West Bengal., this was an exposure visit where women from Karkara watershed could freely interact with their counter parts of ongoing Mahila mandals. Later on large Mahila mandals are reorganized into smaller affinity groups of 10-20 members.

In Karkara watershed, against a target of 30 MM, 22 are formed, the details are given in Table-1.

Economic Base building of Institutions

The trust in Karkara watershed was to create a corpus fund for watershed development committee as well as for village level Krishi Vikas Samities. Similarly, many sub-committees on horticultural nursery-cum sale units, sale-cum AL service Units, fishery development units, self reliant and self propelling were set as an objective. It thus became necessary to crate a fund and pursue the respective activities on commercial lines. This was also to help beneficiary families have a sustainable livelihood. The funds were created from the contribution from member families, transfer of wages on work done, sale proceeds and grant of margin.

Table1: Statement showing important details of Mahila Mandals formed in Karkara Watershed

Sl.no	Village/Name of SHG/MM	Date 1st Meeting	No of Members as on Aug'99	Cluster	Remark
Mayurhand					
1.	Saraswati MM	20.10.1993	17	Mayurhand	Going-hand
2.	Munna	NA	5	-do-	Overcame difficulties
3.	Santoshi	20.10.1993	12	-do-	Going-on
4.	Gulab	18.50.1994	14	-do-	Non-functional
5.	Lakshmi	20.10.1993	20	-do-	Going-on
6.	Bhagwati	27.7.1994	10	-do-	Going-on
7.	Durga	20.10.1993	17	-do-	Non- functional
8.	Champa	NA	12	-do-	Going-on
Husia					
9.	Rekha	9.10.1994	14	-do-	Non-functional
10.	Chandi	16.12.1994	14	-do-	Non-functional
Banha					
11.	Bhadra Kali	21.10.1994	15		Non-functional
Larahi/D.Janr					
12.	Ganga	NA	10	Karma	Going-on
13.	Dipawali	28.11.1994	12	-do-	Going-on
Karkara					
14.	Chameli	28.11.1994	12	-do-	Overcoming interruption
Papro					
15.	Juhi	6.9.1994	20	-d0-	Going-on
16.	Saraswati	1.2.1995	20	-do-	Going-on
Karma					
17.	Madhu	1.6.1995	12	-do-	Goiing-on
18.	Phoorkumar	0.06.1995	8	-do-	Going-on
19.	Bir	01.06.1995	17	-do-	Going-on
Sewal					
20.	Tulsi	NA	11	-do-	Not clear
21.	Laxmi	NA	16	-do-	Not clear
Chouria					
22.	Anjanwala	15.3.1996	20	-do-	Uncertain

money etc. In order to (formularize) these, the committees and sub-committees have been encouraged to open accounts with Gramina Bank branches.

In order to make women take an active part in watershed management, project authorities encouraged the formation of mahila mandals, women self help groups (WSHGS) through Pardhnan. There were 22 such WSHGS in Karaka watershed. These MMs have generated funds with their contribution and opened accounts in local banks. The fund generated through savings was to the tune of Rs. 61,996. Through MMs, women appeared to have gained some social and economic respect and informal empowerment.

II. Progress and Achievements

The biophysical package of treatments has reduced the annual run off by 19-8 percent, sediment production by 41-3 percent and protected 72 percent of critical watershed area from degradation as compared to pre-project scenario. Consequent to the substantial enlargement of cultivation both in the kharif and rain season, regular employment opportunities in Karakara watershed have taken a quantum lamp of 258 percent. Production of paddy and other crops in wet season has become assured with higher productivity. Gross cropped area has increased from 306 to 786 ha and the net area also from 306 to 525.50 ha including 10.5 ha of wastelands reclaimed .Area under high value crops like paddy, maize ,potato and vegetables increased due to conservation programmes.

III. Emerging conflicts and constraints

In an area with a history of tribal traditions, which got overwhelmed by those of other committees, there are many social and water agency conflicts over the years, these get resolved or one gets overtaken by the other. Most of these are consequent to fast development often triggered by political or economic changes. The chhotanagpur plateau is a characteristic one which is standing on a divide to find the right rhythm for managing natural resources. Through sustainable social and economic mechanism, Watershed management has become an accepted medium for achieving this dual objective. But the activities are putting new demands for social readjustments, management

mechanism and was and means for resource mobilization. Obviously many innovations, which would be advanced, could come in conflict with the vested interest.

Problem of land submergence

Land is a scarce resource base and gets divided with every change of generators. Hence loss of land due to submergence because of construction of check dams creates conflicts among farmers. The farmers who lost land due to submergence needs to be compensated. The modalities however, have not yet been formulated to make a workable proposition like giving special rights to undertake pisciculture and sharing of losses by the benefited farmers etc.

Conflict and changes in land utilization

Effective utilization of land through cropping due to water saving become as available, has not been possible at a site between two village because of logistics.

Riparian Right on water Resource Developed for irrigation

The network of structures namely sediment detention structures, water harvesting structures along with earth fill sections of varying dimensions in different reaches of drains have developed land and water for utilization on micro-catchments as well as command. But from the storages developed behind larger check dams, irrigation is being given to the beneficiaries living on their catchments. In the process, households as of riparian village are bound to loose the minimum flow that they were having the same stream their village. This kind of possible conflicts should be anticipated and should be resolved either through technical design and planning or through participatory interactions.

Dispute on land ownership

There are many cases where private as well as government managed lands were allotted to landless or schedules castes. But some other villagers claimed

the land ownership or right to use the resource of the same land. The conflict arose when the allottees wanted to cultivate the patch or the person who offered land for forestation tried to exercise his exclusive control on the plantation.

Problem of open fencing

Cultivated hands

Open grazing has deterred many to take any crop on their land other than paddy. The problem is more for cultivating land during winter even with irrigation. The farmers thus concentrate on growing paddy close to their homestead or only in small patches which they can protect. Hence, potentials of land and water resource developed remain unutilized and of there is land degradation.

Afforested/planted private and community land

It was expected that plants raised on private lands would do well. But it was not so as plants were also severely browsed and felled for immediate use. On community land, the damages are severe. Institution like village krishi vikas samiti or user group groups failed to address the serious problems and to develop a system of social fencing. But one cannot forget that if water acts as a catalyst for profitable use of land, the provision of a perennial support cover ensures continued water availability.

Hence, institutional mechanism of appropriate type are needed to resolve these emerging conflicts.

Conclusions

1. There has been increased participation of community and household at village level as evidenced by the establishment of krishi vikas samiti (KVS) at five villages and to intra village committees for horticulture and for improved seed and artificial insemination(AI) services But these samities/committees were formed only at five villages where benefits from 3 bigger check dams have reached. In any of the remaining eight villages

of the karkara watershed, no such development could be seen with a view to promote local initiatives to utilize development water storages, undertake pisciculture, horticulture, raising fuel fodder plantations etc

2. Formation of Mahila mandals (MMs) has been a bold initiative. MMs have in sensitizing women and have succeeded to an extent in cutting across the divide of caste and creed.

Recommendations

1. Intuitional development at village level as well as self help group level within the village should be promoted for mobilization of local resources. This would also be necessary for cultivating man agent and utilization of the resources generated and assets developed during the project.
2. Intuition as development should also cover other villages which are not benefited by bigger efforts such as irrigation and fisheries in storages behind check dams. Here thrust should be on promoting better management and utilization of small water storages for irrigation as well as fishery horticulture, tree planting for fuel and fodder and for adopting planting based new income generating activities.
3. Creation of revolving funds, opening of bank accounts and credit linkages should be included in the list of activities of a WSM project for providing impetus to local organizations. This would encourage them to take new initiatives on income generation within the watershed. Hence, the extension programme should be set in operation.

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