

**Watershed Development Program in Andhra Pradesh
And its implications on Livelihoods of Rural Poor**

**A Paper by
M V Rama Chandrudu**



WASSAN

**12-13-452, Street No 1,
Tarnaka**

Hyderabad - 500017

Tel: 040-7015295/6

wassan@eth.net

duram@rediffmail.com

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Many critiques negate the term “livelihoods” as one of those new buzzwords in the development jargon. Suddenly everyone seems to be busy promoting livelihoods of poor. Many are trying to bring their past experiences into the framework of livelihoods, to gain some credibility. Irrespective of the criticism associated with the term, many agree that the framework of livelihoods provides an over arching and comprehensive understanding of the reality in a systematic manner. The contribution from international donors (SDC, DFID, OXFAM, UNDP and others) and academic institutions (IDS, IRMA and others) in developing conceptual frameworks and crystallizing the philosophy was well recognized.

Watershed Development program also tried to expand its scope by adopting the terminology of livelihoods and tried to rediscover itself in Andhra Pradesh. This paper tries to analyze the present preparedness of watershed program in addressing the livelihoods concerns.

Conceptually, can watershed program contribute to the cause of livelihoods approaches/ philosophy? Let us explore this, using the key words of livelihoods framework.

The following table gives the theoretical provisions made in Guidelines of watershed program, against the key parameters of livelihoods framework.

Key Works of Livelihoods Framework	Brief Explanation of the Key Word as per Livelihoods Framework/ Concept	Provisions made in Watershed Program (as per Guidelines) vis a vis the key word
Focus on Poor	Explicit. Strongly supports the cause of poverty alleviation through livelihoods analysis.	Equitable distribution of benefits and opportunities to asset less/ poor. The program has to reach all landed community too. Contributes to the agenda of poverty reduction.
Transforming Structures and Processes	Institutions are part of transforming structures and processes. Recognizes the membership of poor in such institutions is an important asset.	Poor, asset less and women are expected to be organized into self-help groups. The representatives of these groups are expected to be members at committee/ associations. Does not look into markets, etc with a clear mandate. Tries to create a new culture of self-help and local control by primary stakeholders.
Vulnerability	Recognizes the influence of constraints/ vulnerability factors in the choice of livelihood options/ strategies.	Recognizes drought as an important vulnerability factor in dry land regions. Attempts to reduce the adverse impacts of drought (as part of objectives). Understanding of trends/ seasonality is important part of planning process.
Assets	Natural, Social, Financial, Human and Physical assets together generate livelihoods options.	Watershed program through creation of institutions of stakeholders, building their capacities and investing on the conservation of the natural resources creates/ strengthen all types of assets of watershed stakeholders.
Livelihoods Outcomes	Enhanced income, dignity, food security, well being, etc.	Watershed program intends to achieve these by conservation of watershed resources by

		communities.
Capacities	Building strengths is one of the principles of the livelihoods approaches.	Intends to builds the capacities of key stakeholders. Provides adequate budget to this.

From the analysis, it is clear that the watershed program supports the enhancement of livelihood options of the primary stakeholders in a large way. There are some more opportunities within the watershed program to further strengthen the livelihoods of poor, as per the Guidelines. Unfortunately they are not completely realized. We can see this later part of the paper.

Please note that the above table is prepared based on the Livelihoods Framework of DFID. The philosophy/ framework conceptualized by SDC/ IRMA (Nine Square Mandala) has incorporated other elements like inner space, aspirations of individuals, etc, which many consider more comprehensive. While the DFID framework throws up a check list of related issues for livelihoods analysis.

Analysis of Experiences in Andhra Pradesh:

Andhra Pradesh has a distinction in watershed program. Since 1995, nearly 6000 watershed projects, highest in the country, are being implemented in the state. The state government made necessary administrative arrangements like creation of separate project directorates at district level (DPAP Offices) and introducing Multi Disciplinary Teams (MDTs). Large number of Voluntary Organizations were involved in the program, apart from different government departments. These experiences are be analyzed in the following aspects.

1. Understanding Processes & Institutions of Primary Stakeholders
2. Technology
3. Coverage of Poor and Livelihoods
4. Operating Systems within Facilitating Organizations

Understanding Processes & Institutions of Primary Stakeholders

Guidelines have a very clear emphasis on participatory processes in watershed program. However, the actual practices on ground are found to be different. The studies conducted by WASSAN in Ranga Reddy (10 villages), Nalgonda (30 villages) and Mahaboobnagar (20 villages) Districts, to understand the nature of these processes indicate that there are many gaps between the envisaged processes and actual practices on the ground. Though the watershed program is successfully scaled up with occasional positive experiences, the quality of the program suffered. The main observations from these studies are presented here. These can be classified into two categories.

A. Most Common Observations (observed in about 70% to 80% of watersheds).

- a. Though awareness programs are organized, they are not consistent and regular. Importance of works got highlighted in these awareness programs, instead of role of community in the program.
- b. A very weak institution of primary stakeholders is created. User groups are almost absent. Watershed Committee consists of powerful village leaders. They do not necessarily represent user groups or self help groups.
- c. Centralization of power at the community level in the hands of few (president/ secretary) is not a rare feature. The program became “Committee Centered” instead of “Community Centered”.

- d. Action planning process is driven by the district administration. The primary stakeholders did not find space in the process of planning.
- e. The menu of watershed interventions is a short one, with limited number of standard interventions. Bunding, check dams, gully checks, plantation, and contour trenches were the most common interventions.
- f. Space of peoples' knowledge in the program is fairly limited. Some times the options demanded by farmers were not allowed in the program.
- g. Women did not receive any importance in the program.
- h. Genuine contribution from users is not mobilized in majority of the cases. Majority of the contribution is cut from the wage laborers, from their daily wages.

B. Special Practices (observed in about 10 to 20% of watersheds):

- a. The net planning exercises helped to create User groups and develop user group based action plans.
- b. Multiple interventions were taken up by the watershed committee in water conservation related activities.
- c. Consistent communication programs were organized to spread the message of the watershed program. Project Implementation Agencies organized training programs to committees/ user groups.
- d. Contribution was mobilized genuinely from users as a necessary condition.
- e. SHGs were given responsibility of watershed works.
- f. Women members of SHGs formed the watershed committee.

Key Questions:

- ↘ In spite of providing space and time for institution development, participatory planning and participatory implementation in Guidelines, why is it not allowed in the reality?
- ↘ Why are the facilitating teams do not have necessary skills, orientation and capacities to develop institutional base for the program?
- ↘ Why are government and implementing organizations silent, while wages of poor are cut in the name of "contribution"?
- ↘ Why are SHGs kept out of the reach of watershed, in terms if resource management and decision making?
- ↘ Where are poor in watershed institutions? Why the implementing agencies are not able to facilitate their inclusion?

Technology:

Though there are standard watershed technologies developed by national level research organizations, government departments, implementing agencies are not really familiar with these technologies. Technology related to irrigation engineering dominated watershed program for considerable time period. It is evident from the fact that there is no standard schedule of rates (SSR) developed specially for watershed program. The SSR is adopted from various government departments. Framework of watershed technologies is fairly limited to engineering, but does not include technologies related to agriculture productivity (Like Non Pesticidal Management practices, water efficiency), changes in cropping pattern and animal husbandry.

However, Andhra Pradesh could effectively mainstream some of the standard technologies in watershed program. These technologies relate mainly to construction of earthen bunds, check dams, gully checks and contour trenches. The technical norms are highly standardized and generally not site specific. The process studies conducted by WASSAN indicate the following pattern in technical aspects of the program.

- A. Physical boundaries of watershed are not delineated scientifically.
- B. Area of village is generally higher than micro watershed area (500 ha). As a result of this, the investments were spread to the entire village. But the technology is not adopted/ fine-tuned to this change.
- C. Investments on public lands are generally given low priority. The investments on public lands ranged from 3% to 25%. Water harvesting structures are important interventions in public lands.
- D. Most common interventions are limited to construction of earthen bunds, check dams and gully checks. These works are on private lands.
- E. Repairs of existing structures were not allowed.
- F. Machines were used to construct continuous contour trenches.
- G. Local traditional technical practices were not identified and mainstreamed in watershed program.

Key Questions :

- ↘ Most of the technologies are limited to conservation of natural resources.
- ↘ How to develop appropriate technical norms/ procedures to make technology relevant to social boundaries?
- ↘ How to broad base watershed technologies to include production technologies ?
- ↘ Why is the space provided in Guidelines to promote indigenous technical knowledge is not utilized and mainstreamed?

Process of Inclusion and Exclusion of Poor in watershed program and implications on their livelihoods:

Equity considerations in watershed program are always a dilemma for the facilitators. There is strong notion that the watershed program is meant for landed communities and there is nothing that poor landless can get from the program. WASSAN conducted a study “Processes of Inclusion and Exclusion of Poor in ongoing watershed program in Andhra Pradesh” (2002) to understand the space given to and benefits accrued to poor in watershed program. Case study approach was adopted to understand the key processes that include and exclude poor in watershed program. One of the key indicators is the budget that reached poor. The following table presents the findings of the study with reference to this indicator.

Budgets that Reached Poor:

S.No	Factor	Details
1	Sample Size	10 Completed watersheds in 8 districts *
2	Total Number of Families in 9 watersheds	1947 (100%)
3	Number of Poor Families in 9 watersheds	872 (45%)
Asset Base of Poor Families		
4	Number of Poor families having animals (Average number of animals/ Poor Family: 5)	90 (5% of total families) (10% of poor families)
5	Number of Poor families having land (Average land/ Poor Family: 1.13 Acres)	476 (24% of total families) (55% of poor families)
Benefits that reached poor families		
6	Number of poor families that got benefits of watershed program**	803 (41% of total families) (92% of poor families)
7	Total expenditure that reached poor (out	Rs.25 lakh

	of 144 Lakhs)	(17.41% of works components)
8	Average Budget that reached per poor family	Rs. 3122
9	Highest share of benefits	From wages (5.83% of works budgets for 25% of poor families) Earthen bunds (4.17% of works budget for 32% of poor families)

* Effectively 9 watersheds as data from one watershed could not be generated due to unavoidable reasons.

** Some times, same family got more than one benefit.

Though this study is not exhaustive, the findings of the study can be classified into following aspects.

General Impressions:

- The study indicates that about 17% of total project investments are made on poor families in the selected watersheds. (Rs.25 lakhs for out of total works budget Rs 144 lakhs for 9 projects)
- Total number of poor families that got benefits/ investments (803) seems to be almost equal to total number of poor families (872). But of these benefits are concentrated within landed poor families (about 55% of poor families). Some of the landed poor families received multiple investments (more than one intervention) also.

Poor Families and Investments on their land:

- Highest number of poor families (about 32% of poor families) has constructed earthen bunds, with an average investment of 2166 Rs/ Family.
- About 5% of poor families could construct gully checks on their lands with an average investment of 4306 Rs/ Family.

Poor Families and Investments on Common Property Resources (CPRs):

- Though the practices and investments on CPRs differ from district to district, most common investments on CPRs are tree plantation, soil and moisture conservation, water harvesting structures, etc. Some times the drainage line treatment is also considered as CPR.
- Majority of plantation and seedling did not survive, for the want of budgetary/ programmatic support on management of CPR lands (watering of plants/ watch and ward, etc). This expenditure could only create wage opportunities, but could not create any usable assets in the watersheds.
- In certain districts, the investments on CPRs (Land) are less than 3%. (Eg: Ranga Reddy District).
- Mostly investments on water harvesting structures (which are common to a group of farmers) are considered to be investment on CPRs. (Nalgonda, Khammam). In such cases, the investments are about 25% of total budgets.

Poor Families and Water Harvesting Structures:

- A total 40 poor families (about 3% of poor families) have benefited from water harvesting structures.
- Average investment per family is highest (Rs21572/-).
- Check dams and percolation tanks were the only interventions.

Poor Families and Their Institutional Space:

- User Groups and SHGs are considered to be building blocks of the watershed program. As explained earlier, the group building process is fairly weak. Committees are constituted without forming user groups/ SHGs.

- The space for poor in these groups in the sample village (Total 10 Villages) is found to be like this.

Number of villages in which	
100% poor are organized	One
No attempts were made to form groups (of poor and non poor)	Two
Groups were organized on paper. These groups collapsed immediately after the program is completed.	Seven
In the sample villages, it is found that 5 to 20% of members in existing groups of women belong to poor families.	

- When women and poor persons were in key positions, they could ensure that poor families got priority of wage opportunities from watershed program.
- In watershed committees, representatives of poor families/ poor are present as a norm. The PRA exercises conducted (during field study) indicate that the women and poor are generally in the periphery of the program and decision making processes. (Except in two villages).

Poor Families and Wage Opportunities in Watershed Program:

Data on employment generation (if available) is not dependable, as payments are made based on “quantity of work”. However, the data generated from the field exercises highlight the following aspects.

- Only 25% of poor families got wage opportunities.
- The earnings of poor from accrual from wage are in the range of Rs. 24,000/- to Rs. 2,30,000/- in different villages. From this one could see that there are many factors working “in favor of” and “against” poor, even in case of wage opportunities to poor. One cannot and should not take it for granted that it would automatically flow to poor in the village.
- Machines (hydraulic excavators) were used in 50% of the sample villages. Each village spent about Rs.80,000 to Rs.1,00,000/- on machines. This fund is expected to be spent on manual labor.
- When women were in key positions (in two villages), they opposed the use of machines and decided to give employment opportunities to local poor.

Poor Families and Capacity Building Inputs to Them:

- Poor persons were not specially targeted during training programs.
- Only President/ Chairman/ Secretary participated in training programs. Most of the time, these training programs are review meetings. They are not organized like training/ orientation programs, with necessary preparations.
- Most of the WDTs also did not get adequate inputs/ orientation on issues like equity, gender and planning for these concerns.

Key Questions:

- Why should asset ownership be the basis for inclusion? Why not access to assets as basis for inclusion?
- Why the asset base of poor ignored in watershed program (like animals/ waste and fallow lands)?
- How to change the mind sets of facilitators that this program is “only for farmers” and there is no space of asset less families? This is a major block in the problem.
- Why is that selection process of villages is blind to concentration of poor? What criteria are used to select the village?
- Whether it is followed?

- ↳ Budget norms (both for wages, unit costs and timing of works) are against the poor. How to change them? Who sets these norms? What benefits they have by adopting these norms?

The study indicates that there is ample scope for enhancing the space for poor in watershed program and it is a process intensive approach. The framework of watershed program should be sensitive to this agenda. Necessary capacities need be built within the facilitating/ implementing organizations to operationalise these processes.

Operating Systems within Facilitating Organizations:

Processes at grass root level are influenced by the management systems and strategies within facilitating organizations. Participatory nature of watershed program demands new orientation, skills and attitudes from facilitating organizations. All organizations involved with this program need to reorient themselves to the needs of watershed program. If they fail to do so, the program suffers. Process Studies conducted by WASSAN observed that certain important organizational issues influence the quality of the watershed program. Sometimes, these are creating critical bottlenecks in implementing the program. An understanding of these aspects would help in creating a favorable and enabling environment for watershed program.

In the context of watershed program, many organizations were involved with different roles. Government of Andhra Pradesh has created a special separate project directorate Drought Prone Areas Program office and Multi Disciplinary Teams for steering the this program at district level. Large number of voluntary organizations are involved in the program. This chapter relates to these two sets of organizations. The discussion mainly relate to situations at district level.

Management Systems – DPAP and Project Implementation Agency Voluntary Organizations

Parameter 1: Selection Process of Staff/ Organizations	
DPAP	Voluntary Organizations
Centrally made at Commissionerate level. No specific criteria for selection of eligible candidates.	Selection criteria/ process for selecting voluntary organizations is not clear and ad hoc.
<i>Implications</i>	
Unable of facilitate/ support participatory program like watershed program in majority of cases. Centralization of power.	Inexperienced voluntary organizations with poor commitment are given responsibility of facilitating watershed program.
Parameter 2: Orientation of Staff	
DPAP	Voluntary Organizations
Some times ad hoc arrangements. No plan or mechanism.	No plan or mechanism
<i>Implications</i>	
Staff could not understand what is expected from them.	Staff could not understand what is expected from them.
Parameter 3: Internal Planning Systems	
DPAP	Voluntary Organizations
Ad hoc. Not based on need at field level. Driven from top.	Driven by DPAP. Not based on needs of watersheds
<i>Implications</i>	
Top down approach. Target orientation	Top down approach. Target orientation
Parameter 4: Implementation of their action plans	
DPAP	Voluntary Organizations
Take up multiple functions that are mutually inconsistent. (Eg: Monitoring and supervision).	Does not take up keen interest in the program. There are no incentives and “autonomy” to voluntary organizations.

<i>Implications</i>	
Poor role clarity.	Does not provide necessary inputs at grass root level.
Parameter 5: Monitoring and Review	
DPAP	Voluntary Organizations
Excessive & redundant data collection and over reporting. Some times the data is undependable. Monitoring is confused with evaluations and decision-making.	Spend considerable time to generate data.
<i>Implications</i>	
Centralization of power.	Tired of reporting and lost interest in monitoring.
Parameter 6: Financial Systems	
DPAP	Voluntary Organizations
Funds for training, community organization and administration are centralized. Systems are not transparent. Fund flows do not relate to action plans.	Very ad hoc systems. Many organizations do not follow standard accounting procedures. Occasionally mismanagement of funds is observed.
<i>Implications</i>	
Poor and inadequate inputs on training and community organization. Implementing agencies are not motivated.	Image of voluntary organizations is at stake.

Leaving occasional exceptionally sound management practices at DPAP and implementing agencies level, one can conclude that the above observations would represent an average picture of management systems/ operating practices within these organizations. These observations also indicate that the strong correlation exists between management systems within facilitating organizations and participatory processes at grass root level.

Key Questions:

- ↘ Who selects the staff of DPAP and on what basis?
- ↘ Are they fit for their job? The general impression at village level and higher level is that the staff is corrupt and is killing the spirit of the program.
- ↘ How are the voluntary organizations selected? What are the criteria? Whether these criteria are followed or not?
- ↘ Why are they so many dubious voluntary organizations in this program, while credible and established organizations are running away from the program?
- ↘ What is the role of MLA/ MP and Other people's representatives? What is the role of government officers?
- ↘ Why is this process delayed in most of the cases?
- ↘ What happens to the budget meant for capacity building/ community organization and over heads of the program? Why is this grant centralized? Who keeps the track of the utilization of these grants?
- ↘ Do civil society organizations and others have any access to correct information?
- ↘ What are the roles of Central and state governments in utilization of this grant?

What after Watershed interventions? – Issues and Concerns:

Watershed projects initiated in 1995 are completed. There are no systematic studies conducted in Andhra Pradesh to assess the impact of the program and understand the status of institutions created. The data base/ information available at Commissionerate, Rural Development has certain limitations¹ and cannot be used for drawing any reliable conclusions. Studies conducted by Anil C Shah, Development Support Centre, Ahmedabad (2001 and 2002) indicate that watershed program immensely contributed in mitigating the impact of drought for two consecutive drought years. The villages in which watershed program was implemented had better drinking water, agriculture, productivity and wage opportunities compared to those villages where watershed program is not implemented.

Most Common Observations:

Informal studies by WASSAN and author indicate that typically the following changes are most commonly visible, after the completion of watershed program in a village.

- Improved ground water position.
- Improved availability of drinking water.
- Increased intensity of agriculture.
- Increased private investments on irrigation infrastructure (mainly bore wells)
- Increased area under irrigated agriculture.

Concerns:

Though these changes are positive, the management of these changes is critical. Some of the concerns after the watershed program is completed are briefly mentioned below.

Concern 1: Precarious Water Resources:

With the augmented ground water resources, private investments also increased considerably (Informal studies conducted by author indicate that the investments from individual farmers are more than the total investment from watershed development program). The competitive exploitation of augmented ground water by individual farmers is pushing the villages towards irretrievable positions. Absence of institutional arrangements for ground water management is a critical issue here. Needless to say that drinking water is the main victim of this situation.

Concern 2: Dry Land Agriculture:

The watershed development program is facilitating a shift in agricultural practices that are commercial and water intense. The early indicators warn that this shift may not be sustainable in long run. The market forces and a sense of pride attached to irrigated crops also facilitate this shift. Natural resource conservation related interventions would be necessarily followed up with interventions related to strengthening dry land agriculture. Some of them are

- Developing locally controlled and internalized systems for seeds, fertilizers, pest management, processing etc.
- Marketing Support -pricing and procurement for public distribution systems for dry land crops.
- Diversification into horticulture/ animal husbandry that is suitable to dry lands.
- Field relevant action research on technologies, institutional and financial arrangements.

¹ The author has interacted with DPAP on a number of occasions to understand the data base related to watershed impact and found that there are certain conceptual limitations with the available data – choice of parameters, methodology of collecting data, aggregation/ interpretation of the data, etc.

One could see that the interventions for strengthening dry land agriculture would range from field level facilitation to creating policy support.

Concern 3: Weak Institutional Base

One can also see the near collapse of watershed-based institutions (user groups and committees) once the program is completed, as the inputs they received were too inadequate to sustain the institutional base. Similarly Self Help Groups are not properly integrated into watershed program and these groups do not have any agenda of natural resource management. The nature of Institutional base would influence the sustainability of the natural resources (as explained earlier in case of ground water management), ability of the communities to diversify and access support from different programs/ institutions.

Concern 4: Unattended Agenda

Inclusion of reserve forestlands into watershed development plans and creating entitlements over the forest produce is not yet part of watershed development program. Though Guidelines (1994 and Revised 2001) have indicated that the joint forest management committees can be considered as watershed committees/ user groups, in reality this integration is not taking place. Agreement between forest department and rural development department/ other departments involved with watershed program is a critical bottleneck. The agreement should respect the autonomy of user groups/ watershed committee in terms of fund utilization and rights over forest produce.

Similarly, the tanks in dry land regions (under the control of Panchati Raj Department and Irrigation Department) need special attention. Watershed program (investments and technical interventions) largely help the farmers in the catchment areas of these tanks. The riparian rights of farmers at micro/ macro watershed level are of critical concern particularly in drought years. Similarly, institutions for ground water management need to be created to utilize augmented ground water in a sustainable manner.

Concern 5: Convergence of Other Institutions:

Special efforts need to be made to facilitate the convergence between watershed groups and institutions like Panchati Raj Institutions, Forest Committees, Water Users Associations and other institutions. In drought prone areas, the watershed association can act like a platform for convergence of other programs. The mechanisms, processes and rationale for such convergence need be developed in a systematic manner.

Redefining Watershed Framework – Within and Beyond

Lessons learned (Key Questions) from each of above analysis and the concerns would form the basis for conceptualizing the future options and opportunities that exist for watershed program. Some of the key aspects that define the future course of watersheds are

Major Shifts

Though the guidelines of watershed program have clear emphasis on participation, equity and ecological restoration, these concerns were not really transformed into reality. This means that Guidelines were not adequate. The key facilitating organizations need to consider major shifts at “conceptual” (thinking) level and at “Operational” (doing) level. The above lessons indicate the following shifts.

Shifts are needed	
From	To
That the watershed program is only for farmers or landed communities.	Families with poor quality resources, Resource poor (landless) families and women have legitimate stake in the watershed program, along with farmers.
Centralization of resources and decision-making processes.	Decentralization of resources and decision-making processes.
Vagueness in social and technical boundaries of watershed.	Clear policy to merge social and technical aspects of watershed boundary.
From not providing space and time for promoting participatory planning and implementation processes	Adopt systematic project management approach to give due importance to each phase of project.
Standard and limited technical options	Space for Indigenous technical knowledge and expert's knowledge.
Grants based financial support	Grants and loan based financial supports
Perception of NGOs as mere implementing agencies in the minds of government.	Role of NGOs as facilitators, forerunners and resource organizations.

It is clear that the Guidelines alone are not adequate to change the mindsets of facilitating organizations. Government of Andhra Pradesh has to conceptualize necessary “operational processes” and provide necessary support mechanisms to ensure that these shifts actually take place in reality.

Redefining Framework of watershed – Within and beyond:

The above analysis, an attempt is made to redefine the framework of watershed program. It is interesting to note that current thinking of policy makers and planners in the state is also modeled around these key elements.

A. Framework of Watershed -- Within:

Integrating of Participation, Equity and Gender Concerns

Institution Development

Strong Capacity Building Support to facilitating organizations and institutions of communities on technical and social aspects.

Project Management Cycle consistent with objectives and activities of the program

The progression of interventions forms the basis.

- Conservation of Natural Resource
- Enhancement of Agriculture Productivity
- Promotion of Livelihoods

The centrality of participation, equity and gender brings in significant changes in the framework of watershed program. This makes the framework sensitive to the needs of poor and women. When assets of poor specially targeted in watershed program, it is not just sufficient to “conserve” the soil or water, as the quality of these assets need continuous investments till they reach production stage. Since poor do not have adequate resources (unlike rich farmers), they cannot make these additional investments on these assets. Poor families need additional investments for activities that are not part of conventional watershed treatment. The redefined framework integrates the needs of poor and women in watershed context and to facilitate the following activities/interventions.

- Support to resource poor families from Natural Resource Management Component:
 - Creating clear entitlements to resource poor families in terms of access, control and usufruct rights over benefits from CPR management.
 - Priority should be given to conservation, development and management of CPR on which resource poor families depend.
 - Reclaiming fallow lands owned by poor by fully financing from the project without limitation of unit cost.

- Support to resource poor families from Production Enhancement Component:
 - A complete cycle of investments on assets of resource poor families should be made (convergence of budgets for resource conservation, productivity enhancement, marketing, etc with resource poor families) to see that the investments would contribute to over all quality enhancements of their assets.
 - Investments for enhancing productivity of land and animals like inputs to agriculture, horticulture and animal husbandry.
 - Developing systems for linkages – seed, feed, fertilizer, marketing, processing, etc.

- Support to resource poor families for Livelihoods Support Activities:
 - This category of interventions should address the critical gaps in the above two interventions. To facilitate this process, flexibility is very essential at the group level. These budgets may be utilized for supporting direct poverty reduction interventions. The following are the key interventions suggested. Preference should be given to those interventions, which have strong linkages with natural resource base of the watershed.
 - Seed capital assistance for groups (In the form of revolving funds among groups).
 - Supporting Community Investment Initiatives of groups for creating necessary infrastructure or any other activity.
 - Income generating activities with NRM focus.
 - Developing locally managed alternative food and social security systems

Watershed programs supported by Ministry of Agriculture and Andhra Pradesh Rural Livelihoods Project have recognized these elements, though these programs are in the initial stages.

- Capacity Building Inputs – Program and Organization Development Related:
 - As observed earlier, most of the concerns expressed earlier can be realized only if the facilitating organizations have necessary skills and orientation. Capacity building support to suit to the needs of the program need to be organized in a systematic manner. It should be recognized that it is high time that action should go beyond mere lip service to this agenda.

- Large-scale participatory natural resource management programs need to specially concentrate on “organization development” issues to increase the effectiveness of these organizations in facilitating the participatory processes at grass root level. DPAP and implementing agencies need special attention and support in organization development related aspects (vision and goal setting, systems for planning/ implementation and monitoring of the program, financial and human resources planning). This process would make the DPAP a responsive and responsible institution to the needs of the program.

B. Watershed Framework – Beyond:

These elements have significant bearing on the watershed development in dry lands, though they have a different set of activities and strategies. At this point of time, one can consider them as Key Elements that are still beyond watershed framework.

Land redistribution and reforms / Ownership of land by poor landless families

Policies that strengthen dry land agriculture – Pricing; Marketing Support and Procurement for Public Distribution

Enhancing the pride of dry land agriculture

Convergence of Other programs

▪ **Land Reforms:**

- Owning asset (particularly land) is a key factor that influences the process of inclusion of poor in watershed program. However, this can be achieved only through land reforms. Land reforms need political will and commitment from government machinery. In all operational terms, this agenda is beyond watershed framework. Encouraging land lease by groups of landless persons is one of the options to enhance the access to land by poor, in due course of time (Land Lease program by Deccan Development Society).

▪ **Dry Land Agriculture – Pride and Prices:**

- Though some models/ experiments exist in creating/ developing pride and markets for dry land crops (Alternative Public Distribution System – Deccan Development Society), this agenda needs special efforts and political will from government and cultural shifts/ revival in the society. Covering risk of dry land agriculture (crop failure due to pest attack and dry spells) could be one of the options to encourage dry land farming (Deccan Development Society). Some of these options can be integrated creatively with watershed development program, with additional efforts by the facilitating agencies. Benefits depend on the scale of operations and commitment of the facilitating organizations.

▪ **Convergence of Programs, Policies and Institutions:**

- A greater level of convergence is possible if all the policies of different organizations/ programs have similar guidelines and processes. Though the Ministry of Rural Development has explicitly stated in its watershed guidelines, other departments need to develop similar policy documents and allocate funds towards this agenda. Currently there is no dialogue between various departments/ organizations involved with natural resources. Initiating and facilitating this process need to be carefully thought out.

Conclusions:

It is clear that the watershed program supports the enhancement of livelihood options of the primary stakeholders in a large way. Here are some more opportunities within the watershed

program to further strengthen the livelihoods of poor, as per guidelines. The experiences of Andhra Pradesh in mainstream watershed program were analyzed and lessons learned from this analysis formed the basis for refining and redefining the watershed framework.

It clearly brings out the need to expand the scope of watershed program to be more sensitive to the needs of poor, women and dalits and also to refresh the current implementation process. The key elements that are relevant, but still beyond watershed framework (at this point of time) were also identified (eg: Land reforms, agriculture pricing, etc). There are many questions raised from the experiences of implementation of this program in the previous years. The experience so far indicates towards a more proactive role for NGOs/ VOs to constantly follow up with various institutions involved in the watershed program particularly government and non governmental organizations in addressing these questions.

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