Chapter-V

Watershed Programme in Mahaboobnagar District
For better understanding on status of Watershed programme in Mahaboobnagar, it would be more appropriate to present a brief profile on the district.

**Map of Mahaboobnagar District**

**DISTRICT PROFILE: MAHABOOBNAGAR**

The district derived its name from Mahaboobnagar, its headquarters town which was named after Mir Mahbub Ali Khan, the Nizam of Hyderabad. Ranga Reddy and Nalgonda Districts in the North bound the District. Nalgonda and Guntur Districts in the East, the rivers Krishna and
Tungabhadra in the South, Raichur and Gulbarga Districts of Karnataka State in the West. In the Southeastern parts of the District there are hill ranges extending from North to South of Achampet Taluk. The hills are mostly flat-topped. The District is located between 15° 55', 17° 20' North latitudes and 77° 15' and 79° 15' East longitudes. There are seven towns including two Nagarpanchayats in the District. The District is divided into 5 Revenue Divisions, 64 Mandals comprising of 1550 revenue villages including 73 uninhabited Villages and 1348 Gram panchayats.

DEMOGRAPHIC PARTICULARS

The District has an area of 18470 Sq. Kms. with a population of 3513934. Mahaboobnagar town, which is a District Headquarters, is largest urban unit in the District, with a population of 1,39,662 as per 2001 Census. The male population is 1782340 while the female population is 1731594. The district has a decennial growth rate of 14.20 per cent as against 14.59 per cent for the state in 2001 Census. The Scheduled Caste and Scheduled Tribe population is 6,00,927 and 2,78,702, which accounts for 17.10 per cent and 7.93 per cent of the total population of the District as against the state average of 16.19 per cent and 6.59 per cent respectively. The sex ratio is 972 females per 1000 males as against the state average of 978. The literacy rate is 44.4 per cent, which is lowest in the State, for females 31.9 per cent and for males 56.6 per cent respectively. The density of population for the District is 191 persons per Sq. Kms. as against the state average of 277 (District Hand, 2006).
Climate and Rainfall

The climate of the District is generally hot. In district summer period is from March to May. The daily temperature during the period ranges from 16.9 centigrade to 41.5 centigrade. The minimum temperature during the winter season i.e., November to January ranges from 16.9 centigrade to 19.1 centigrade. The rainfall in the District is scanty and the South-West Monsoon is erratic. Maximum Rainfall is received during the South-West Monsoon only. The rainfall received during 2005-2006 is 973.2 mms., as against the normal rainfall of 604.7 mms., the excess being 60.9 per cent (District Hand, 2006).²

Soils

The Soils of the District can be classified into three broad groups i.e., Red Soil, Black Cotton and Chalka Soil or missed Soils. Thus, the predominant Soil is Chalka or Dubba Soils, which is about 70 per cent of the total area.³

Agriculture

The total geographical area of the District is 18.47 Lakhs hectors. Agriculture is an important occupation of the people in the District. About 90 per cent for the total main workers are engaged in Agriculture (including cultivators and agricultural labourers). The main crops grown in the District are Paddy, Jowar, Bajra, Maize, Pulses, Groundnut, Castor, Sunflower, Cotton and Chillies (District Hand, 2006).⁴
In the District the total number of operational holdings are 742639 for all social groups, inclusive of institutional, joint and individual holding with 1240751 hectares of area operated. The number of holdings and area operated for SCs and STs is 108748 holdings and 120005 hectares and 63331 holdings and 91059 hectares respectively (District Hand, 2006).\(^5\)

**Concern and Development**

The Mahaboobnagar District is located in the Central Part of Peninsular India. The agriculture activity is intensive and the groundwater resources are meager. The southern part is relatively plain and has irrigation facilities from the projects on Tungabhadra and Krishna Rivers. The western part is backward and agriculture is also poor. The North Eastern part receives relatively more rainfall and greener and the agricultural activity is intensive.

Drought is ever persistent in Mahboobnagar District. The people’s adaptive and coping strategies have become a way of life. Seasonal migrations for alternative livelihood opportunities have become a tradition for some of the people. There are various ongoing projects / programmes in the district to mitigate the drought and its impact on livelihood opportunities. There are various departments in the District actively working for improving the livelihood opportunities, namely District Water Management Agency (DWMA), District Rural Development Agency (DRDA) District Poverty Initiatives Programme (DPIP), Department of Agriculture, Department of Animal Husbandry, SC, ST, BC corporations and other line departments.
In space and time the livelihood opportunities and options vary, there can be various factors responsible directly or indirectly. Livelihood in the rural environment is diverse and is vulnerable to shocks and trends like Climate Change and Variability. And also there are certain policies and structures existing for the sustainability of the livelihoods. In space and time sustainable livelihoods are result of reduced vulnerability and increased adaptability.

Agriculture is the main livelihood activity and people are traditionally involved in agriculture but there is need for them to adapt to the organic and sustainable agricultural practices. There is also need to give them better skills in on-farm and off-farm related activities for coping with drought. There is scope to explore traditional knowledge in agricultural practices. PTD can be tried to innovate locally suitable sustainable agricultural practices. Seed banks could be promoted for conserving the traditional indigenous seeds, which are resistant to climate variability. A grain bank can be promoted for food security. Majority of the farmers are small and marginal, there is a need to provide additional livelihood opportunities for the farmers. There is also need to provide them with knowledge and technology to improve the existing lands and to bring the fallow lands under cultivation has providing advice on cropping – choice of crops and management practices. There is a need for better extension of services by the agriculture department. Need to improve or work for non-farm based livelihood activities, improvement of natural resources to cope in lean season and for food security of the people.
There is a need to revive the dairy sector. The milk production is directly related to availability of fodder. The farmers are well aware of the leguminous fodder, there is a need to encourage and provide seed and other inputs for fodder improvement. Options for breed improvement could be explored for better management of livestock.

More area can be brought under cultivation through water conservation measures and good agricultural practices (like reduced paddy cultivation, installation of micro irrigation systems, etc.). Open wells could be converted into recharge wells and there is scope for renovation of existing tanks to increase the capacity of the tanks. Under the ongoing watershed programme there is scope for development in the following sectors - fodder development, Agro- and social forestry, horticulture development, promotion of quality of seeds, promotion of Vermiculture, Sustainable Agricultural methods, non-farm livelihoods, and facilitation for silt removal from the village tanks for application in the dry lands.

The people in the villages are mainly dependent on agriculture as primary activity. As majority of the farmers are marginal and small, there is need for livelihoods diversification by the people. The people need to be provided training and skills for adapting to diverse trades. This would also provide additional employment opportunities. People are well aware of the developments in various fields, therefore it is easy for them to diversify and adapt to other livelihood options.
Alternative livelihood options need to be provided to the educated youth in the village. The women and youth in the village should be imparted trainings in Micro-enterprise development. For example youth could be trained on electrical repairs (motor winding and pumps) and servicing home appliances etc.

**Irrigation Profile**

The Krishna and Thungabhadra rivers are the main rivers that flow through Mahaboobnagar District. Major Irrigation Projects like P.J.P., Tungabhadra, Bheema, Gadwal Branch, Kalwakurthy Lift Irrigation, Nettampadu are Irrigation Sources of the Mahaboobnagar District.

The total irrigated areas in hectares presently are 35,000 as against 1,19,000 in the year 1956-57.

**Tungabhadra**

This project was first planned in 1948 near Hospet as a joint venture of erstwhile Hyderabad State and Mysore State. Left canal of this project was planned to utilize about 100 TMC ft of water to irrigate lands in Raichur and Mahaboobnagar.

**Rajolibunda Diversion Scheme**

This project was started to irrigate 93,000 acres in then Raichoor district of the then Hyderabad State utilizing 17 TMC feet of water. It was started by the Hyderabad State and completed by 1956. Subsequent to the reorganization of states, 5900 acres ayacut fell within Karnataka State and
remaining ayacut of 87000 acres fell within Andhra Pradesh State. The Chief Engineers of Karnataka and Andhra Pradesh agreed for full supply discharge of 850 cusecs at head and 770 cusecs at the border point between Karnataka State and Andhra Pradesh State in 1959. This Project irrigates lands in Alampur, Gadwal Talukas in Mahaboobnagar District. But on account of poor maintenance of canal system and illegal lifting of water by Karnataka farmers at upper reaches only an extent of about Ac.40000.00Gts is being irrigated through RDS in Alampur and Gadwal Taluks of Mahaboobnagar District.

Krishna water dispute tribunal allotted 1.20 TMC feet of water out of 17 TMC feet of water to Karnataka State ayacut and the remaining 15.90 TMC feet of water to the ayacut in Andhra Pradesh State in 1980. It also gave directions that out of the 17.10 TMC feet of water allotted, 7 TMC feet of water would be in the shape of regulated discharge from Thungabhadra project in the lean months from January to May. Karnataka does not release even half of the required flow to ryots of Gadwal and Alampoor taluqs of Andhra Pradesh State, despite a specific direction from the tribunal. The Andhra Pradesh Govt. did not show any interest to take up the issue with Karnataka.

The entire Mahaboobnagar district is drought affected. The entire district lies in Krishna basin and it is at the head of the basin in the state. The present irrigation is confined to minor irrigation projects, a few medium
projects and one existing major project namely Rajolibunda Diversion Scheme across the Tungabhadra river.

The Bachawath tribunal had allotted 17.1 TMC feet of water to Rajolibunda Diversion Scheme: 1.20 TMC feet of water to Karnataka and 15.9 TMC feet of water to Mahaboobnagar district. But in reality only 5 to 6 TMC of water is available for Mahaboobnagar district, though the availability of water from Tungabhadra is almost 15.90 TMC. Karnataka deprives Telangana region of water due to clandestine and unauthorized and illegal diversion of 6 to 7 TMC of water, with the tacit knowledge of the officials.

Bheema Project

The Bheema project envisages the use of 20 TMC feet of Krishna waters for irrigating 2 lakh acres in the drought affected and upland areas of Makthal, Atmakur, Wanaparthy and Kollapur taluqs of Mahaboobnagar district. Alternatively the water can be lifted from the Bheema River or Krishna River just below its confluence with the Bheema River and stored in the proposed Sangambanda balancing reservoir at Makthal to irrigate the areas. The work is in good progress and Kharif 2008 envisages it to release water for irrigation.

Andhra Pradesh State committed in its note APPK 36 to take up a project across Krishna River five miles upstream of Gadwal meter gauge railway bridge with a gross storage of 33 TMC feet water and storage of 16 TMC feet water under stage-I. The irrigation would be flow irrigation of
about 1.05 lakh acres, and stage-II could be a lift scheme to irrigate about 1.80 lakh acres. The tribunal allotted 17.64 TMC feet of water to the project and work is taken up under stage I named as Jurala Project in 1981 and completed recently. The water is yet to be made available to extensive areas of ayacut (Revenue Division Office, 2006). 

**Gadwal Branch Canal:**

Thungabhadra low-level canal was to irrigate 80,000 hectares in Gadwal and Alampur Taluqs of Raichur district in Hyderabad state. Due to reorganization of states in 1956, the two taluqs Gadwal and Alampoor became part of Mahaboobnagar district of Andhra Pradesh. The Chief Engineer of Thungabhadra wrote to the Chief Engineer Andhra in September 1956, stating that for the cropping pattern for the scheme approved by the Hyderabad State for 580,000 acres including 10,000 acres of second crop paddy. The total quantity of utilizable water was estimated to be about 80 TMC feet of water out of 100 TMC of water allotted to Hyderabad in 1951. He added that it had been further decided that the balance quantity of water should be utilized in the lower reaches lying in the Telangana region (Revenue Division Office, 2006).

The Karnataka State misguided the Krishna water dispute tribunal stating that there was no administrative sanction from Gadwal branch canal beyond Mile 141 and the Andhra Pradesh State accepted the result. The tribunal ruled that the claim for water to Gadwal beyond 141 miles is not
sustainable. The tribunal or the state of Andhra Pradesh did not ask Karnataka State whether there was administrative sanction separately for the branch canal from Mile 127 of main canal to KM 141.00 of Gadwal branch canal.

Mahaboobnagar district also lost substantially in two other projects, around 25 TMC ft in upper Krishna, 50 TMC ft in Bheema project plans, which were in advanced stage of formulation, before reorganization of states took its toll. The result was that Mahaboobnagar district remained drought prone and poorest district in Andhra Pradesh state, with percentage of irrigation recording as low as 4.61% of its shown area in 1996-97, in spite of the fact that three big rivers Krishna, Thungabhadra and Bheema are flowing through it.

Concerned with the plight of the Mahaboobnagar district, the Krishna water dispute tribunal allotted 17.84 TMC feet of water for Jurala project stage I to irrigate around 42,000 hectares bordering Krishna river in Mahaboobnagar district.

**Jurala Project Stage-1**

This project envisages irrigating scarcity areas in Taluqs of Gadwal, Alampur and Wanaparthy in Mahaboobnagar district. The erstwhile Hyderabad State had taken up investigations in 1930 for irrigating certain areas in Telangana region of the present Mahaboobnagar District along with areas in Karnataka region, which merged with the Karnataka state after the states reorganization.
In the 1st Stage there will be two canals:

1. The Right Bank canal will be about 17 miles long serving the areas of Gadwal and Alampur Taluqs in Mahaboobnagar district.

2. The left Bank Canal, which will be about 36 miles, serves Taluqs of Atmakur and Wanaparthy of Mahaboobnagar District. The total water requirement in Stage-1 for the Right and Left Bank Canals is 16.80 TMC feet of water.

In second stage a pumping scheme to irrigate around 80,000 hectares is not implemented in spite of its commitment before the Krishna water dispute tribunal 30 years back in 1970. The government is not in a position to supply power to agricultural connections even 9 hours a day. Therefore there is no justification for the pumping scheme especially in view of the fact, that an attractive alternative diversion scheme from adjacent Bheema river, where required flows are available. It would be much cheaper in construction and operation than the pumping scheme (Revenue Division Office, 2006).8

Kalwakurthy Lift Irrigation Scheme:

This scheme was planned to lift the water at Kollapur from foreshore water of Sreesailam project in 8 stages in Nagar Kurnool. Kalwakurthy foundation stone was laid in 1990 and the works are in progress by way of construction of balancing reservoirs at Gudyal Gattu and Jonnalaguda etc. The total ayacut planned under this Project is about 300000.00 Acres, it is planned to release water from Kharif 2009 by utilizing 25 TMC of water (Revenue Division Office, 2006).9
Nettampadu Lift Irrigation Scheme

This Project was proposed about 6 years back to irrigate about 200000 Acres with PJP Foreshore waters by way of lifting 22 TMC of water near Uppair. Gadwal and Alampur Talukas will get irrigation potential under this Project through Guddemdoddi and Ralampad Balancing Reservoirs. It is proposed to be completed by 2010 (Revenue Divisional Office, 2007).\textsuperscript{10}

Glimpse of irrigation profile in Mahaboobnagar

Having described various important irrigation projects in the district, the researcher felt it appropriate to provide a statistical picture on irrigation status in the district in the table

**IRRIGATION PROFILE-MAHABOOBNAGAR (DIST)**

<table>
<thead>
<tr>
<th>A. Completed Projects:</th>
<th>Nos.</th>
<th>Ayacut in Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Major Irrigation Projects: 2 Nos.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Priyadarshini Jurala Project:</td>
<td>1</td>
<td>102200</td>
</tr>
<tr>
<td>b. Rajoli banda diversion scheme:</td>
<td>1</td>
<td>87500</td>
</tr>
<tr>
<td>Total:</td>
<td>2</td>
<td>189700</td>
</tr>
<tr>
<td>II Medium Irrigation Projects: 2 Nos.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Koilsagar Project:</td>
<td>1</td>
<td>12000</td>
</tr>
<tr>
<td>b. Sarala Sagar Project:</td>
<td>1</td>
<td>4186</td>
</tr>
<tr>
<td>Total:</td>
<td>2</td>
<td>16186</td>
</tr>
<tr>
<td>III Minor Irrigation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I &amp; CADD., tanks (Above 100 Acres ayacut)</td>
<td>669</td>
<td>146751</td>
</tr>
<tr>
<td>P.R.tanks (below 100 Acres ayacut)</td>
<td>5374</td>
<td>103073</td>
</tr>
<tr>
<td>Mini Lift Irrigation schemes:</td>
<td>37</td>
<td>56986</td>
</tr>
<tr>
<td>Open wells:</td>
<td>5319</td>
<td>7447</td>
</tr>
<tr>
<td>Bore wells:</td>
<td>146665</td>
<td>205331</td>
</tr>
<tr>
<td>Total:</td>
<td>158064</td>
<td>519588</td>
</tr>
<tr>
<td>Grand total of Completed schemes:</td>
<td>158068</td>
<td>725474</td>
</tr>
</tbody>
</table>
B. Ongoing Projects:

I Major Irrigation:
   a. Mahatma Gandhi (Kalwakurthy) Lift Irrigation 1 340000
   b. Jawahar (Nettapadu) Lift Irrigation 1 200000
   c. Rajiv (Bheema) Lift Irrigation 1 203000
   \textbf{Total:} 3 743000

II Medium Irrigation:
   Koilsagar Lift Irrigation 1 38250

III Minor Irrigation:
   I&CADD., tanks (Above 100 Acres ayacut) 2 486
   Mini Lift Irrigation Schemes: 27 39907
   \textbf{Total:} 29 40393

\textbf{Grand total of Ongoing schemes:} 33 821643

C. Contemplated schemes:

I. Major Irrigation:
   a. Kalwakurthy 4th lift 1 380000

II. Minor Irrigation:
   I&CADD tanks (Above 100 Acres ayacut) 23 3839
   \begin{itemize}
     \item Mini Lift Irrigation Schemes (APSIDC) 11 31340
   \end{itemize}
   \textbf{Total:} 34 35179

\textbf{Grand total of Contemplated schemes:} 35 415179

Source: Dept. of Minor Irrigation, Mahaboobnagar

Profile of Watershed Programme

Most of the Watershed programmes launched in the district were under DPAP and then followed by Employment Assurance Scheme. Recently more watershed projects were launched under different programmes like Rural Infrastructure Development Fund (RIDF) and Andhra Pradesh Rural Livelihood Project (APRLP). A few of the projects in this regard were also launched under external assistance category like UNDP and DFID etc. A total of 511 Watershed projects were launched under the DPAP category in the district. Under EAS programme 212 programmes were launched. Within the category of special programmes like RIDF and APRLP 219 projects were
launched in the district. Several of these programmes were launched and still a few of them were progress as on the day of study taken up. In specific, the total 942 programmes taken up, out of these 464 watershed projects were completed and the remaining 478 projects were under process.\textsuperscript{11}

\textbf{Evolution of Watershed}

Drought is essentially climatic phenomenon characterized by low and erratic rainfall. It adversely affects agricultural productivity, drinking water supplies and livelihood of people. A severe drought often leads to various forms of human misery (e.g. migration of people, starvation deaths etc.,). The historical records show that some regions of the country experience drought quite frequently. These areas are termed as “drought prone areas”.

The Mahaboobnagar district is the second largest in the state of Andhra Pradesh and is one of the drought prone districts the watershed development programme has DPAP since 1975 with DRDA as implementing agency.

While the Desert Development Programme focused on reforestation to arrest the growth of hot and cold deserts, the Drought Prone Areas Programme focused on reforestation to arrest the growth of hot and cold deserts, the Drought Prone Areas programme concentrated on non-arable lands and drainage lines for in-situ soil and moisture conservation on Wastelands under government or community or private control as their predominant activity.
While the focus of these programmes may have differed, the common theme amongst these programmes has been their basic objective of land and water resource management for sustainable production. The Technical Committee constituted by the Ministry of Rural Development under the Chairmanship of Prof. Hanumantha Rao, studied the implementation and impact of the DPAP, DDP and also the IWDT Programmes all over the country and recommended that a common set of operational guidelines, objectives, strategies and expenditure norms for watershed development projects should be evolved integrating the features of the three programmes under the Ministry for Rural Development.

The watershed approach has conventionally aimed at treating degraded lands with the help of low cost and locally accessed technologies such as in-situ soil and moisture conservation measures, afforestation etc., and through a participatory approach that seeks to secure close involvement of the user-communities.

Prof. Hanumantha Rao Committee, Constituted by the MORD studied the implementation and impact of the Drought Prone Areas Programme and the Desert Development programme all over the country and recommended a common set of operational guidelines, objectives, strategies and expenditure norms for watershed development projects integrating the features of the three programmes under the MORD. Accordingly, the Guidelines for Watershed Development were framed and brought into force with effect from 1st April 1995 and these are again revised in the year 2001.
With a view that watershed project should move from purely soil and moisture conservation focus to a wholesome community managed approach which gives a voice and stake to the landless, poor and women APRLP came into existence in the year 2001.

According to the revised guidelines the area watershed would be approximately 500 ha & in micro watersheds the developmental works are being taken up by watershed committees with the help of self-help group and user groups under the supervision of watershed development Team, Project implementing Agencies, Multi Disciplinary Teams.

Implementation strategy is as follows

1. Ridge to valley approach
2. Priority for SMC works
3. Low cost structures
4. Labour oriented works namely, MPTs, Farm Ponds, repairs to traditional water bodies etc.,
6. Identification of works and preparation of action plans by the community.
7. Execution of works by the PRIs & CBOs.
8. Maintenance of transparency in all the stages of implementation.
Progress of Watershed Projects

During the early seventies the Government of India launched Drought Prone area programme (DPAP) in selected semi arid and arid districts with the following three objectives.

1. To reduce the impact of drought
2. To stabilize the income of the people, particularly weaker sections of the society
3. To restore and enrich the ecological resources

DPAP-I batch

92 watersheds were sanctioned in Mahaboobnagar district under DPAP I batch. Watershed programmes in these watersheds were grounded from 1995-96 where as works started at the fag end of 1996-97. These watersheds concluded by 31-3-2000. Though source has been created for soil and moisture conservation and constructed structures to harvest the rainwater there was no sufficient rain received in the past 2 years. There are some balances available with these watershed committees for which some more new works were planned to be carried out in the half-yearly action plan. Deviation action plans were also sanctioned wherever the works sanctioned and the original action plans could not be carried out for some reason or other. The ongoing works were allowed to complete. The required amounts for committed expenditure under horticulture have been kept apart.
**EAS**

58 watersheds under EAS I batch were grounded in year 1997-98. 156 watersheds were grounded under EAS II batch during the year 1998-99. So far an amount of Rs.266.762 La. was spent out of total allocation of Rs.3350 La. to treat 10.6 Lakh Ha. Action plans of all these 212 watersheds have been approved works are in brisk progress.

**DPAP-III**

40 watersheds have been sanctioned for III batch. Action plans of all these watersheds have been approved. Deviation plans are also been considered whenever they have been requested. The balances available on account of non-execution of works and savings after the ongoing works are considered for half-yearly action plan.

**DPAP-IV**

Under this batch 120 watersheds were sanctioned. The Governing Body has approved the names of 120 watersheds selected based on the priority of APSRAC. In spite of best efforts made only 96 watersheds committees could be formed. The watersheds in remaining villages could not be formed due to lakh of unanimity and consensus. Since approval of Governing Body was only for 120 villages there was no option left except to negotiate and concentrate in these villages to form watershed committees. Restless and persistent efforts made to watershed committees gone in vain; as a result only 96 watersheds could be formed.
DPAP-V

163 watersheds have been sanctioned for this batch. The Governing Body has given approval for 235 villages, which is 150 per cent of sanctioned strength. This approval enabled the agency to select watersheds with better option of co-ordinating unanimity consensus and people participation etc. The deficit of IV batch DPAP could be recouped with watershed committees formed. Besides recouping the deficit of IV batch, the sanction strength of V batch is hopeful to be achieved comfortably.

DPAP-VI to X\textsuperscript{th} batches

35 watersheds have been sanctioned under VI\textsuperscript{th} batch in 2000, 36 watersheds under VII the batch in 2001, 48 watersheds under VIII in 2002, 48 Watersheds under IX in 2003 and 48 watersheds under X in 2004 and DPAP XI-50 water sheds and DPAP XII 52 watershed were sanctioned subsequently.

APRLP

With an objective that, watershed projects should move from purely soil and moisture conservation focus to a whole some community managed approach which gives a voice and stake to the land less, poor and women. The Govt. of AP has entered an agreement with DFID (UK) who shares this vision to implement the Rural livelihood programme in Mahabobnagar District in the year 2001-02 Presently there are 100 water sheds in APRLP.
Andhra Pradesh Rural Livelihoods Programme provides critical support to ongoing watershed movement in five drought prone Districts of A.P, Mahaboobnagar being one among that. The mandate is to position Livelihood concerns strategically in watersheds for the inclusion of women, Landless and poor. The programme advocates innovation, lesson learning, convergent actions and policy influencing. APRLP will invest in a new stream of approaches and ideas for bringing about a positive change in the well being of rural populace.

Objectives

1. Focus on watershed and watershed plus activity.
2. Capacity building of community for poverty focused and gender equitable approaches to manage resources.
3. Higher income and employment options for landless families groups.
4. Improved agriculture income for small and marginal farmers in watershed villages.
5. Activities for watershed based sustainable rural livelihoods.
6. Effort to make reduced vulnerability to drought.
7. Facilitate district level human and institutional development strategy.
APRLP MAHABOOBNAGAR DISTRICT

The Andhra Pradesh Rural Livelihoods Project aims to reduce poverty through the strategy of building effective and sustainable rural livelihood. It is a multilateral program of the government of Andhra Pradesh, the department of rural development and the government of India, partnered by the Department For International Development (DFID), UK.

The purpose of the project is to enable the government of Andhra Pradesh to comprehensively implement pro-poor watershed-based sustainable rural livelihoods approaches in all the districts of the Andhra Pradesh. Government agencies and other stakeholders to eliminate poverty in the drought-prone areas of AP adapt the projects broader goal is to ensure the more effective and sustainable approaches.

Project Coverage

The project started in 1999. Initially the project districts selected were Anantapur, Kurnool, Mahaboobnagar, Nalgonda and Prakasam, as they are semi-arid, drought-prone and among the poorest in the state. In 2004-2005 the APRLP approach was extended to all the watersheds in all 22 rural districts of AP, and the end date of the project was moved from June 2006-Dec 2007.

Approach

The APRLP has always followed national watershed guidelines and participatory approach.
APRLP's approach is to take the village as a unit rather than the area-based definition of a watershed. APRLP will saturate the treatment area, in terms of soil and moisture conservation, and reach out to all sections of the population (in particular the poor, landless and women) through the promotion of sustainable livelihoods. APRLP is guided by the principle that interventions should be people-centered, pro-poor, flexible and participatory. Activities should build on strengths, involve the better use of existing resources and include new options to address constraints identified by the community. The approach has given new meaning to watershed management by applying the "watershed plus" agenda. This puts the people living in the watershed at the center of the development and involves not only conservation of the soil and water and also efficient and sustainable use of natural resources to improve the livelihoods of everyone living in the watershed with a special embassies on those with little or no land, women and the poorest of the community.

It is important to note that the APRLP is not a stand-alone project it works with in the water shed program (APRLP, 2006).\textsuperscript{12}

**Organizational structure**

The project support unit located in Hyderabad started functioning since 2000. In 2004 the project support unit was amalgamated with the commissionerate of rural development of Government of Andhra Pradesh, and named the Project Management unit. In each district the project is implemented by the governments Districts Water Management Agency.
Village organizations are federations of self help groups at village level formed basically to monitor the performance of self-help groups and provide financial, social and technical services to them. Two members from each self-help group form the executive committee of the village organization. Through common counsel each village organization finalizes the membership fee and the shared capital from self-help groups to establish a revolving fund that it manages.

**Shepherd migration in Mahaboobnagar**

Migration is considered an important means of a living for those in margins and more so for those living in rain-fed areas. This case study is an attempt to understand shepherd migration in Mahaboobnagar district. The rural populace in general and resource poor in particular subsist on small ruminant-based livelihoods. They graze their livestock in the common grazing areas of the village and surrounding areas. The decline in pastures and the change in natural resource base have put those who subsist on small ruminants under pressure.

Every year between January and July as the grass dries up and water becomes scarce, shepherds in the district migrate with their sheep in search of grass and water. The shepherds were from the villages of Peddajatram, Dhanwada and Kollampally in Narayanpet Division in Mahaboobnagar District. They had just returned from seasonal migration. Every year, they leave in January and usually return after rains in June/July. During this period there is a scarcity of water and fodder for their animals.
They estimated that about 10 lakh local breed sheep are taken (500km to 700km) from Mahaboobnagar to distant places in Nalgonda, Khammam, Karimnagar and Warangal Districts. Each shepherd owns an average of 50 to 200 sheep. During the migration period it is usual for other family members to take it in turns to migrate. That is, after 30 days the first person is replaced by the second; and so on. During the migration, the sheep graze on the tufts of grass available in the open harvested fields, on the bunds and on other village commons. As the sheep droppings are good for soil fertility, farmers allow the sheep to graze in their fields and keep them in temporary enclosures on the fields at night. In return, the farmers sometimes serve the shepherds with food or give them money.

Each day during the migration, the shepherds cover about 10 to 25 km. They need to be alert while passing by fields under crops. If the sheep trespass the fields and damage the crops, the shepherds are forced to pay fines (up to Rs. 10,000) to the respective farmer/s. In such cases, they are sometimes forced to sell their sheep to pay the fine.

This case study illustrates that shepherds have learned to utilize the opportunities provided by the schemes meant for them but also sustain their livelihoods from the common property resources far beyond their geographical area. The recurring drought in the District has made many people adapt to such migrations to far off places as part of their livelihood strategy (DWMA Office, 2006-07).
Traditional Livelihood Activity: A case study of Traditional Rural Mobile Service Provision

Nutharaganti Ramulu’s family migrated about 10 years previously to Vulpara Village, Onguru Mandal. He belongs to the Pusalolu caste, which is traditionally a skilled caste. They repair items like locks, umbrellas, torches, bulb holders, tin boxes, suitcases, etc. and sell beauty items for ladies and spices.

He stays in a major town for 2 to 3 months, usually in unfinished houses under construction by the Government for the poor or at the Mosque / Temple, etc. He, along with his daughter and his two sons and their families, are presently residing at Tadoor village, a Mandal headquarter. They provide their services in all the villages within a 10 to 15 km radius. All these distances are covered on foot. Out of his 9 children, only 2 sons and a daughter are surviving. His sons are living Independently with their families but he is supporting his 15-year old daughter. She supplements their daily income (Rs. 50 to Rs. 60) by selling ladies’ wigs (APRLP, 2006).14

Regarding his daughter’s marriage he said that a man recently approached him, a divorcee previously married three times who had left all his wives. The suitor demanded a dowry of Rs.30,000. Knowing about his character, he declined the proposal. He said that he is only able give a dowry of Rs.10,000 to Rs.15,000. All his tools and instruments are valued at Rs. 400 only. His average monthly earnings are Rs.1,500, he does not have any immovable property such as land and house.
This is an example of mobile service provision as a livelihood. Pusalolu are a minority people whose livelihoods are sustainable based on an optimum catchment area (population) and diversification of their services (DWMA Office, 2006-07).

IDENTIFICATION OF LIVELIHOOD INTERVENTIONS

Experiences in Salonepalli Village, Hunwada Mandal: A case study

The situational analysis was completed in Salonepalli of Hunwada Mandal under the jurisdiction of MDT-I. After studying the situational analysis, livelihood interventions are to be initiated in this village.

From the situational analysis report, the following was found:

Total women are 850
No. of women in groups are 235
No. of groups are (18 + 5) 23
Total funds available in groups are Rs. 2,00,000/-

The following is based on focused group discussions with women groups of Mudiraja community. It was observed that majority of women are hard working and are regular in paying for their subscriptions and repaying their loans. Padmavathi group, consisting 15 members, 12 members are active in vegetable production and they are selling the vegetables in the Rythu Bazaar, Mahaboobnagar. 2 members have buffaloes and one member has a goat as well as to 0.5 - 1.5 acres of land in which they are growing vegetables. It was observed that 5 members of this group do not having identity cards of Rythu Bazaar. They travel everyday with their produce to the Rythu Bazaar
by private vehicles but find it very difficult. All members are using their loans received from the Voluntary Organization for productive purposes such as growing vegetable seed, purchasing buffaloes, goats etc (DWMA Office, 2006-07).

**Gangavathi Group**

**Leader**: Erramma  **Secretary**: Ananda

This group comprises 15 members. 10 members are active in agriculture and horticulture and are selling their produce in Mahaboobnagar. 2 members are selling their vegetables at Rythu Bazaar. One member used her loan to open a Kirana shop as well as for seasonal agriculture. Some members used their loan received from VO to purchase seeds and fertilizers.

**Chakravarthy Group**

**Leader**: G.Chandramma  **Secretary**: Nagamma

This group comprises 13 members. 2 members used their revolving fund for the purchase of sewing machines. The remaining members used their loan for investment in agriculture, horticulture and buying goats.

**Telugutalli Group**

This group comprises 13 members. 2 members have 2 acres of land on which they only grow vegetables and sell their produce at Rythu Bazaar. 2 members used their loan received from VO for consumption purposes. Remaining members used their loan for income generating activities such as dairy, leaf plate making, and backyard poultry.
Varalakshmi Group

This group comprises 15 members. 8 members are involved in vegetable cultivation. 3 members are involved in dairy, and the remaining members used their loan received from V O for consumption purposes.

Observations:

❖ All the women from different groups are hard working which is a major strength.

❖ The majority of women used their loan for income generating activities.

❖ Maintenance of records is very good.

❖ The women were observed to have good entrepreneurial qualities.

❖ Women are motivated to grow different varieties of vegetables because of Rythu Bazaar. They found alternative sales outlets when they had greater vegetable production.

Future strategy for livelihood interventions:

❖ Better transport facilities are to be made available for easy transportation of produce.

❖ Identity cards of Rythu Bazaar (RB) are to be provided to the members who are not consulting with RB Officials.

❖ Subsidized seed is available in some varieties, it should be encouraged to extend to subsidy seed of all other varieties through Rythu Bazaar and Horticulture Department.
Alternative livelihood activities during off season can be initiated by encouraging, raring of goats, dairy and back yard poultry.

Vermicompost can be encouraged as an alternative to chemical fertilizers, which in turn reduces their investment.

**Impact of watershed activity on livelihoods, Mahaboobnagar**

In Annaram village, Mahaboobnagar District, a number of alternative crops are being grown and alternative agricultural practices are being undertaken as a result of watershed activity. There is also an increase in biomass, which has resulted in increased livestock numbers. There are also other direct and indirect benefits on the overall livelihoods of the village. Small and marginal farmers used to depend on wage labour opportunities but are now able to cultivate vegetables and paddy, and are able to graze their livestock locally due to the increased fodder availability.

**Livelihood Planning**

APRLP initiatives begin with livelihood planning at village-level. It involves conducting QPA or PSA (Participatory Situation Analysis), identification of resources and constraints, and wealth ranking by the community to rank the poor. Village plans will be prepared based on constraints faced and resources available across the households and community and community. District experiences are presented below:

Through the process of a situation analysis (QPA) in Salonepalli, Mahaboobnagar, the current situation was understood and possible future
opportunities identified. There are 850 women in the village, 235 of which are organized into 23 SHGs. The groups have a total corpus of Rs. 2 lakhs. Some group members are engaged in vegetable production and are selling their produce in Rythu Bazaar. Problems they face include the cost of transport and some of their members do not have identity cards to sell at the bazaar. The SHGs members have many entrepreneurial qualities and have already utilized group funds for productive purposes such as the purchase of vegetable seed and fertilizers, buffaloes and goats, the establishment of petty shops, investment in agriculture and horticulture, leaf plate making, backyard poultry, etc. Future interventions include: facilitating other women to learn from progressive members; providing identity cards to vegetable producers; access to subsidized seed; identifying opportunities for diversification (e.g. off-season activities); encouraging vermi-compost production as an alternative to chemical fertilizers.

RIDF-VI

This project proposal is for treatment of watershed basin area, which is outside Reserve Forest, and existing watershed areas.

The main objectives of this project are:

1. Conservation of soil on the hill slopes and thereby retention of the fertile top soil in-situ along the hill slopes
2. Retaining the moisture in-situ.
3. Controlling soil erosion and thus preventing the formation of gullies in course of time.
4. Improving the vegetation cover like grasses, shrubs etc., and encourage natural regeneration in the forest areas of watershed basins.

5. Improving the ground water recharge in the lower reaches and valley portion by effective interception of the flow of rain water.

6. Improving the environmental conditions by encouraging the tree growth.

**RIDF-VIII Phase-I & II**

Community Lands like Forest Areas, Barren Hills, Streams and Nalas, Tank areas etc., requires treatment on watershed lines from ridge to valley. Run off from these areas going as waste can be recharged into ground water bank by construction of water harvesting structures.

Objectives:

2. Soil Moisture conservation in Forest Areas to improve Natural Regeneration
3. Rejuvenation of Irrigation Tanks by providing Feeder channels and interconnecting tanks.
4. Stabilization of Irrigation area under Tanks & Bore wells.
5. Recharge of water through Cascade of Check Dams aiming at solving Drinking water problem and Rejuvenation of irrigation sources in water stress areas.
Expected Outcomes by end of March 2006 Watersheds

1. 10211 Ha. of area brought under soil and moisture conservation

2. 6693 Ha. of area brought under Plantation

3. 2348462 No. of persons provided wage employment

4. 4010 No. of stakeholders trained

5. 400 No. of CBOs are strengthened on watershed management and livelihoods

6. 100 No. of para-workers positioned +

7. Seed production is initiated in 100 No. of villages

8. 100 No. villages practicing INM and IPM

9. 4000 No. of families accessing the Revolving Fund (RF)

Thus, the Watershed Programme in Mahaboobnagar districts assumes quite significance in terms of supporting livelihood support as well as maintenance of natural resources in the district.
References

2. Ibid
3. Ibid
4. Ibid
5. Ibid
7. Ibid
8. Ibid
10. Ibid
13. Ibid
15. Ibid