

Chapter - 1

1.0 Introduction:

The State of Andhra Pradesh is strategically located in the Indian sub continent. It has the second largest coast line in the country with a length of 974 Km. Andhra Pradesh is increasingly being recognized, as the hub of industrial activity in South India. It is the third largest state in the country with an area of 276754 sq kms, and a population of 76 million.

Andhra Pradesh is bordered on the south by Tamil Nadu, on the west by Karnataka, on the north and northwest by Maharashtra, on the northeast by Madhya Pradesh and Orissa states, and on the east by the Bay of Bengal. The northern area of Andhra Pradesh is mountainous. The highest peak Mahendragiri rises 1500 m above the sea level. The climate is generally hot and humid. Annual rainfall is 940 M.M. The Forests cover 23% of the area.

Geographic Profile	
Districts (23)	Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Krishna, Guntur, Prakasam, Nellore, Chittoor, Ananthapur, Kadapa, Kurnool, Mahabubnagar, Ranga Reddy, Medak, Nizamabad, Karimnagar, , Adilabad, Warangal, Khammam, Nalgonda and Hyderabad
Major cities	Hyderabad, Visakhapatnam, Vijayawada, Tirupathi, Warangal, Guntur, Kakinada, Nellore and Kurnool
Coastline length	974 Kms
Major Rivers	Krishna, Godavari, Thungabadra
Climate	
Maximum Temperature	44.8 °C during summers.
Minimum Temperature	11.3 °C during winters.
Annual Rainfall (Average)	940 mm

1.1 : Drainage Systems and River Basins of the State: & 1.2

The State is divided into three physical regions based on the topography (Coastal Plains, Peninsular Plateau and Eastern ghats). The general slope changes from west to east and south-west to north-east. The peak summits in the State are Tirumala (1150 mts) and Chintapalli (1680 mts). Andhra Pradesh is covered under Zones I to III of the Seismic map of India. The average rainfall of the State is 940 mm with a least rainfall of 521 mm in Anantapur. The State receives substantial rainfall during the north-east monsoon period.

Three major perennial rivers, viz., Godavari, Krishna and Pennar and several other minor rivers drain the State. The river Godavari with its tributaries Pranahita, Manjeera, Maner, Indravati, Kinnerasani, Pamuleru and Sileru drains through the northern parts of the State into Bay of Bengal. The river flows through Adilabad, Karimnagar, Nizamabad, Medak, Ranga Reddy, Warangal, khammam, Krishna, East & West Godavari and Visakhapatnam districts.

The River Krishna with its tributaries Tungabhadra, Vedhavati, Hundri, Musi, Paleru and Munneru flows through the central parts of the State. It drains Anantapur, Kurnool, Mahabubnagar, Ranga Reddy, Nalgonda, Guntur and Krishna districts into Bay of Bengal.

The river Pennar, the third biggest river, with its tributaries Chitravati, Papagani, Cheyyeru and Pincha drains parts of Rayalaseema region. Vamsadhara, Nagavali, Sharada, Yeleru, Gundlakamma, Swarnamukhi and Paleru are some of the important rivers in the State, which have smaller catchments and drain into the Sea.

1.3: National Codes for major river basins of the State:

The Godavari river basin is designated as **E**, and Krishna river basin is designated as **D**. The Pennar river basin is a part of a catchment designated as **C**. The area between the Godavari river basin and the Mahanadhi river basin encompassing the eastern-ghats is defined as basin **F**. It lies in Srikakulam, Vizianagaram, Visakhapatnam and East Godavari districts. The area between the Godavari and the Krishna basins is grouped as basin **I**. It lies in Krishna, Khammam and West

Godavari districts. Similarly the area on the south of the Krishna catchment covers Chittoor, Anantapur, Cuddapah, Kurnool, Prakasam and Nellore districts.

There are in all 40 rivers that drain directly into the sea, and 81 sub basins are recognized as accounting units for the water. However, these sub basins which range in size from 90.65 km² to 15699 km² are generally too big for estimation of dynamic groundwater resources. The ideal recommended size of groundwater estimation unit i.e. the catchment is 300 km². Hence, in 2002, for the purpose of groundwater estimation these accounting units were further sub-divided into 1193 drainage basins that are called watersheds in consonance with the decision of the Groundwater Estimation Committee. However, these divisions are now modified as 1229 in the State.

The areas of the River Basins in the State are as following.

- Godavari 75206.08 Sq. km.
- Krishna 64440.91 Sq. km.
- Pennar 48113.13 Sq. km.
- Other basins 71813.23 Sq. km.

As it was informed that the codification of micro watersheds is taken up by GoI, the code numbers for the micro watersheds could not be furnished. Once the codes are communicated, the District Wise maps with code Nos. will be furnished.

1.4: Overview of the State:

- Andhra Pradesh is blessed with a bounty of natural resources, endowed with fertile land, water and conducive agro-climatic conditions and it is an agriculturally-prosperous State. It ranks among the largest producers of food grains, fruits, vegetables, cotton maize, dairy and poultry products in the country. Leading state in several agro based industries – Sugar, Edible oil, Seafood etc.
- Andhra Pradesh is a mineral-rich state, ranked second in India, containing a vast and variety of mineral wealth. There is still under tapped and untapped mineral wealth throwing up many opportunities in this field for the new entrepreneurs. The state accounts for considerable reserves of important minerals in the country.

- Andhra Pradesh is an energy abundant state. It has an installed capacity for generating 10273.44 MW, the second highest in the country and many projects are under implementation to generate 4715 MW by 2009. In comparison to the other states of India, Andhra Pradesh has progressed furthest in reforming its energy sector (privatization, separation of generation from transmission and distribution). Andhra Pradesh was awarded the best state award for power for the year 2005-06.
- Andhra Pradesh has immensely contributed to the pool of IT professionals in the economy. Nearly 23 percent of the software professionals in the United States of America are from Andhra Pradesh. The State occupies a Place of pride in the country in the IT and IT Enabled Services activities. Most villages in Andhra Pradesh have been covered by the optical fiber network of BSNL and Reliance providing the communications network.
- Andhra Pradesh is home to many manufacturing and service industries such as Information Technology, Bulk Drugs & Pharmaceuticals, Agro Processing; Mineral based Industries, Engineering Industries, Textiles, Leather Goods, Gems and Jewellery. Its pharmaceuticals sector is internationally known for its skills in chemical synthesis and process engineering on the one hand, and its commitment to the invention of new molecules on the other.
- The exports from Andhra Pradesh are growing at 10 percent every year.
- Almost all the important towns in the State are very well connected both by Air, Rail and Road. Two large sea ports already exist at Visakhapatnam and Kakinada. Krishnapatnam and Gangavaram are likely to be completed shortly. A State of the art World-Class International Airport has come up at Hyderabad. Visakhapatnam Airport is also poised for substantial expansion and modernization.
- AP has emerged as the best health care destination in the country with many super specialty hospitals in various fields already existing in the State.

1.5. Economic Development

According to advance estimates of the national economic growth for the year which were released by the Central Statistical Organisation (CSO) in New Delhi, after 50 years, Andhra Pradesh has emerged as the top state in terms of GDP growth. All sectors have registered encouraging growth. Agriculture, in particular, has registered superb growth.

ANDHRA PRADESH has achieved a record growth rate of 10.37 per cent. This is 1.57 per cent higher than that of the previous year. According to data released by the Central Statistical Organisation, Andhra Pradesh has crossed the national average growth rate of 8.73 per cent. For the first time in its history, Andhra Pradesh has achieved a double-digit growth. This is because of the strong performance of all the sectors in the state. Agriculture recorded a growth rate of 8.38 per cent.

The industrial sector grew at 9.88 per cent as against 8.90 per cent at the national level. The service sector grew at 11.5 per cent as against 10.73 per cent at the national level.

Another significant indicator - the per capita income - increased to 9.35 per cent against the national average of 7.55 per cent. Presently the per capita income of the country is Rs.33,131. But Andhra Pradesh has recorded a per capita income of Rs.33,970.

Andhra Pradesh was formed by combining the most backward regions, consisting of different socio-economic backgrounds. In the 50 years of the state's history, it could achieve a remarkable growth on all sectors.

Courtesy: Directorate of Census, A.P.

Statement of Economic development of AP

State Economy	Unit	1999-2000	2006-07 (Q)	2007-08 (A)
GSDP at current prices	Rs.Crores	1,29,403	2,69,173	3,11,752
GSDP at constant (1999-2000) prices	Rs.Crores	1,29,403	2,07,904	2,29,461
NSDP at current prices	Rs.Crores	1,16,966	2,40,261	2,78,717
NSDP at constant (1999-2000) prices	Rs.Crores	1,16,966	1,85,462	2,04,869
Per capita income at current prices	Rs.Crores	15,507	29,582	33,970

Source: # Statistical abstract of AP-2008, Directorate of Economics & Statistics and Report in Hindu dt.8th Feb. 2008.

1.5 b. Watersheds – Conserving Natural Resources for a Better Future

Watershed is defined as a hydro-geological unit of area from which the rainwater drains through a single outlet. Watershed development refers to the conservation, regeneration and judicious use of all the natural resources (like land, water, plants, animals) by human beings. Watershed Management brings about the best possible balance between natural resources on the one side and human beings on the other. Human beings and the ecology are interdependent. The changes in the environment directly affect the lives of the people depending on it. A degraded environment means a degraded quality of life of the people. This degradation can be tackled effectively through the holistic development of the watershed. A watershed provides a natural geo-hydrological unit for planning any developmental initiative. The approach would be treatment from "ridge to valley".

History of Evolution of Watershed Concepts

In order to combat the frequent recurrence of drought in the States, Drought Prone Area Programme (DPAP) was introduced during the year 1975, as a Centrally Sponsored Scheme (CSS) with matching state

share of 50:50 and adopted the watershed approach in 1987. The Drought Prone Area Programme concentrated on non-arable lands. Drainage lines for in-situ soil and moisture conservation, agro-forestry, pasture development, horticulture and alternate land use were its main components.

Integrated Wasteland Development Programme (IWDP) was introduced during 1992 with 100% Central assistance. The Integrated Wasteland Development Programme made afforestation and soil & moisture conservation in waste lands under Government or community or private control as its predominant activity, without much focus on saturation of complete micro watershed and participation of people.

The programmes of dry land development in Andhra Pradesh have undergone a major change from 1995-96 with the introduction of new watershed guidelines, based on the recommendations of Dr. Ch. Hanumantha Rao's Committee Report. All the area development programmes like DPAP, IWDP and Desert Development Programme (DDP) were implemented through these new guidelines. Though the focus of these programmes is different, their common basic objective is land and water resource management for sustainable production.

The term 'watershed-plus' emerged in 1998 to adopt new approaches in watershed projects that would step beyond the usual boundaries in order to address the needs of marginalized groups of people, such as those with no land, women and the poorest of the community. This was to be achieved through activities not normally associated with watershed development projects, such as improved water management, minor irrigation works, the provision of drinking water and sanitation, forestry and interventions to address the specific needs of the poorest, including provision of credit, collection and processing of non-timber forest products, aquaculture and crafts. The DFID funded AP Rural Livelihoods project is an example of watershed plus approach to degraded/ wastelands treatment leading to providing sustainable livelihoods to the rural poor.

The Government of India issued "Hariyali" guidelines in 2003-04 for implementation of watersheds through Gram Panchayats.

Government of India have issued "Common Guidelines for Watershed Development Projects, 2008" for implementation of new watersheds from 01-04-2008. Clusters of micro watersheds with an area of 1000 ha to 5000 ha will be taken up for treatment with revised unit cost of Rs.12000/ha.

Watershed Implementation Approaches

The Implementation approach to watersheds has undergone significant changes over the decades. A comparative statement of the changes that have come in the implementation approaches is given below.

Box: 2 Changes in the implementation approaches of watershed programme.

Period	Watershed size	Approaches
Before 1975s	No specific area.	Implemented in scattered areas by sectoral departments.
1975 to 1990	Macro watershed concept.	Implemented over watersheds of 50000 Hectares area by sectoral departments
1990 to 1995	Micro watershed concept experimented	500 hectare area covered intensively by Multi Disciplinary Teams
1995 to 2002	Micro watershed of 500 ha.	Total participation of people and integrated approach
2002 onwards	Micro watersheds of 500 ha.	Focus on livelihoods of the resource poor and productivity enhancement of Agriculture and livestock.
2003 onwards	Micro watersheds of 500 ha and involvement of Gram Panchayat.	Active involvement of Gram Panchayats in implementation.

2008 onwards	Clusters of micro watersheds, cluster area 1000 to 5000 ha.	Contiguous areas to be taken for treatment. Cost increased to Rs.12000/ha from Rs.6000/ha Focus on livelihoods of the resource poor and Productivity Enhancement of Agriculture and livestock.
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Watershed Selection Criteria

Selection of suitable villages and Project Implementation Agencies is the most critical factor for ensuring success of the programme.

Assessment of the preparedness of the Village to adopt the community based regulations and norms for resource conservation are an important feature. To begin with, villagers from the prioritized Villages need to enter into a Memorandum of Understanding and demonstrate willingness for community action towards conservation of natural resources. Villagers are motivated through repeated dialogues in order to express their unanimous commitment to participate in the programme and fulfill their responsibilities.

The project authorities and the Project Implementation Agency visit the village in which the watershed development project is to be taken up. If the village community is not cohesive, cooperative and willing to abide by the discipline and collective endeavor required to make the project a success, the selection of that village is deferred till they develop the desired level of preparedness. Villages, which are faction ridden on one count or the other, or villages in which absentee landlords predominantly hold the lands, are avoided in the selection process.

The preparedness of village community can be assessed in terms of their acceptance to the norms of watershed programme such as voluntary contribution, willingness to support resource poor, development of community land on preferential basis, taking up water management issues and willingness to maintain the assets after the project period, etc.

Once the watershed area is identified, all the relevant data relating to the watershed is gathered both through primary and secondary sources. The physical boundaries of the watershed are delineated on the maps. The delineating of watershed is based on ridge to valley concept. Similarly the data from remote sensing agencies and resource particulars of the watershed such as land use map, geo hydrological details, cropping pattern, soil and drainage maps is gathered and made available for use in subsequent phase. Multi Disciplinary Team / Project Implementation Agency visits the village to arrive at net treatable area of the watersheds by first demarcating the watershed boundaries and excluding irrigated, sheet rocks and other untreatable areas.

After detailed deliberation, selection criteria were finalized to select most deserving and degraded areas for the watershed based development. The selection criteria followed till now is as follows.

Box 3: Watershed Selection Criteria

S. No	Indicator	Range	Marks	Max. weight-age
1	No of small/ marginal farmers	<25% >25 & <50% >50%	5 10 15	15
2	% of SC/ ST holding out of total	<25% >25 & <50% >50%	3 5 10	10
3	% of women organized in SHGs in the habitation and participation in programme	<20% >20 & <50% >50%	5 10	10
4	Status of ground water	<10 mts >10 mts & <15 mts >15 mts	2 3 5	5
5	APSRAC	VL L	6 12	

		M	18	
		H	24	
		VH	30	30
6	Livestock	<1000 (Nos)	2	
		>1000 & <2000	3	
		>2000	5	5
7	No of families affected/ involved in migration and landless people involved in wage employment	<50	3	
		>50 & <100	5	
		>100	10	10
8	Contiguity and macro watershed for saturation	Yes	5	
		No	0	5
9	Availability of fallow/ waste/ CPR for the poor to utilize usufruct and willingness of community to permit usufruct to landless	<10%	3	
		>10 & <20%	5	
		>20%	10	10
		Total		100

The GoI have issued modified criteria for selection of watersheds in the new common Guidelines to be followed for IWMP watershed.

Programme Phasing

Taking into consideration the experiences of APRLP the implementation of watershed programme is broadly divided into two phases, viz. Preparatory Phase and main Phase. Activities during preparatory phase include orientation to Grama Panchayat, Village Organisation and environment building through awareness generation. This phase is meant for formation and strengthening of institutions and experiential learning by communities by way of implementation of 50 ha. During this phase perspective and annual action plans for Natural Resource Management (NRM), Productivity Enhancement (PE) and Entrepreneur Promotion (EP) are prepared through Participatory net planning and the Annual Action Plans are approved by the Gramsabha. Cluster Level Resource Center (CLRC) and District Level Resource Center (DLRC) undertake Capacity Building on Implementation procedures.

During the main Phase Natural Resource Management (NRM) works are taken up as per approved Action Plan, training programmes are conducted as per Capacity Building (CB) Action Plan and Annual Training calendars for both Primary & Secondary stakeholders. Annual plans are prepared out of perspective plans at the beginning of every financial year for which technical estimates are sanctioned annually.

The process of Natural Resource Management focuses on the lands of poor. Action plans are prepared by User Groups/Village Organisation (VO) following participatory net planning method. Cost effective structures and management of Common Property Resources by the poor with usufruct rights are given top preference. Soil and moisture conservation, Water Harvesting, Plantations are the main works under this component.

Activities under Productivity Enhancement include soil fertility management, micro-nutrient management based on soil analysis, seed production/seed banks by involving Research Institutes and Village Organisations. Para workers in Agriculture & Live stock are trained for quality service delivery. They facilitate Integrated Pest Management and live stock production activities such as door step health and Artificial Insemination services. Fodder Development is undertaken to increase livelihood options and decrease stress during periods of shortage.

Activities under Enterprise Promotion involve identification of poor followed by preparation of enterprise promotion plan for both farm based & non -farm activities. This is scrutinized by Village Organisation for release of revolving fund. Skill improvement trainings are undertaken for enterprise promotion. Bank linkages, convergence with Indira Kranthi Pathakam (IKP) and other Development Agencies and Market linkages are facilitated.

Role of Gram Panchayats

The Government of India had issued Hariyali Guidelines which are implemented in the watersheds from the year 2003-04. This aims to involve the Panchayt Raj institutions more meaningful in planning,

implementation and management of economic development activities in rural areas.

Under these Guidelines Gram Panchayats are implementing the watershed programmes at the field level under the overall supervision and guidance of Project Implementation Agency (PIA). The role of Gram Panchayats is to facilitate the formation of UGs and select Watershed Secretary and Para Worker, preparation of Perspective Plans and annual action plans. It will convene Grama Sabha for approvals and ratification of these plans. Gram Panchayat manages project funds & WDF and facilitates implementation of NRM works. It sponsors trainings & exposure visits for primary stake holders. PE & EP components are implemented through VO. Gram Panchayat liaisons with MPDO and DWMA and supervises and monitors the entire program. It maintains necessary records and books of accounts (as prescribed by the DWMA) and undertakes maintenance of assets with the help of UGs & VO. It develops norms for allocation user rights.

Role of VOs

Village Organization actively participates in the planning process and supports Gram Panchayat in implementation, monitoring and review of action plans. It receives and manages grants from GP allocated for productivity Enhancement and Enterprise Development. VO facilitates the discussions between CBOs and GP for implementation of NRM activities and recommends to the Gram Panchayat for NRM payments to UGs & LGs. It organizes monthly meeting to review progress.

Cumulative Physical & Financial achievements upto March-2009

Out of 9301 watershed projects taken up so far under various schemes of DoLR 4741 were completed and 4560 projects are under implementation. A total area of 46.50 lakh ha. Area is taken up for treatment and an amount of Rs.1722 crores were spent so far.

Cumulative Physical Achievements under Various Watershed Programmes upto March, 2009:

Name of the Scheme	No of Watersheds Sanctioned	Completed Watersheds	Ongoing Watersheds
DPAP	4242	1608	2634
DDP	1054	206	848
IWDP	1499	421	1078
EAS	1906	1906	0
APHM	100	100	0
APRLP	500	500	0
TOTAL	9301	4741	4560

Implementation of all ongoing watersheds through RAGAS Software:

For ensuing effective monitoring of the implementation of Watershed Development Programmes, it was decided to adopt Rashtra Grameena Abhivridhi Samacharam (RAGAS) mode of execution for all ongoing watersheds in the state. Watershed data base is created in the Mandal Computer Centers. Work estimates, Work commencement orders and pay orders etc are generated in the Mandal Computer Centers on the lines of NREGS works. The progress will be captured through web reports. Execution of watershed works through RAGAS software was implemented in Chittoor, on pilot basis, in the year 2008-09. In all other districts, the data entry of all ongoing watersheds was taken up so that they can also switch over to execution through RAGAS from 2009-10 onwards.

Chapter - 2

2.1 Rainfall:

The rainfall in Andhra Pradesh is influenced by both South-West and North-East Monsoons. The normal annual rainfall of the State is 940 mm. Major portion (68.5%) of rainfall is contributed by South-West Monsoon (June-Sept) followed by (22.3%) North-East Monsoon (Oct-Dec). The rest 9.2% of the rainfall is received during the winter and summer months.

The rainfall distribution in three regions of the State differs with the season and Monsoon. The influence of South-West Monsoon is predominant in Telangana region (714 mm) followed by Coastal Andhra (620 mm) and Rayalaseema (407 mm), whereas the North-East Monsoon provides high amount of rainfall in Coastal Andhra area (324 mm) followed by Rayalaseema (238 mm) and Telangana (129 mm). There are no significant differences in distribution of rainfall during winter and hot weather periods among three regions.

Table SPSP 3: Details of average rainfall

S. No.	Name of the District	Average rainfall in mm (preceding 5 years average)
1	Srikakulam	1213
2	Vizianagaram	1190
3	Visakhapatnam	1224
4	East Godavari	1182
5	West Godavari	1063
6	Krishna	1054
7	Guntur	911
8	Prakasam	809
9	Nellore	1107
10	Chittoor	969
11	Kadapa	747
12	Anantapur	595

13	Kurnool	735
14	Mahabubnagar	667
15	Ranga Reddy	833
16	Hyderabad	871
17	Medak	757
18	Nizamabad	947
19	Adilabad	1027
20	Karimnagar	863
21	Warangal	1001
22	Khammam	1238
23	Nalgonda	726
	TOTAL:	945

Source of data: From Directorate of Economics and Statistics, A.P., Hyderabad.

2.1.b and SPSP-4:

The details of the drought and flood affected areas will be submitted along with DPRs.

Chapter – 3

3.0 Demography and land distribution – an overview:

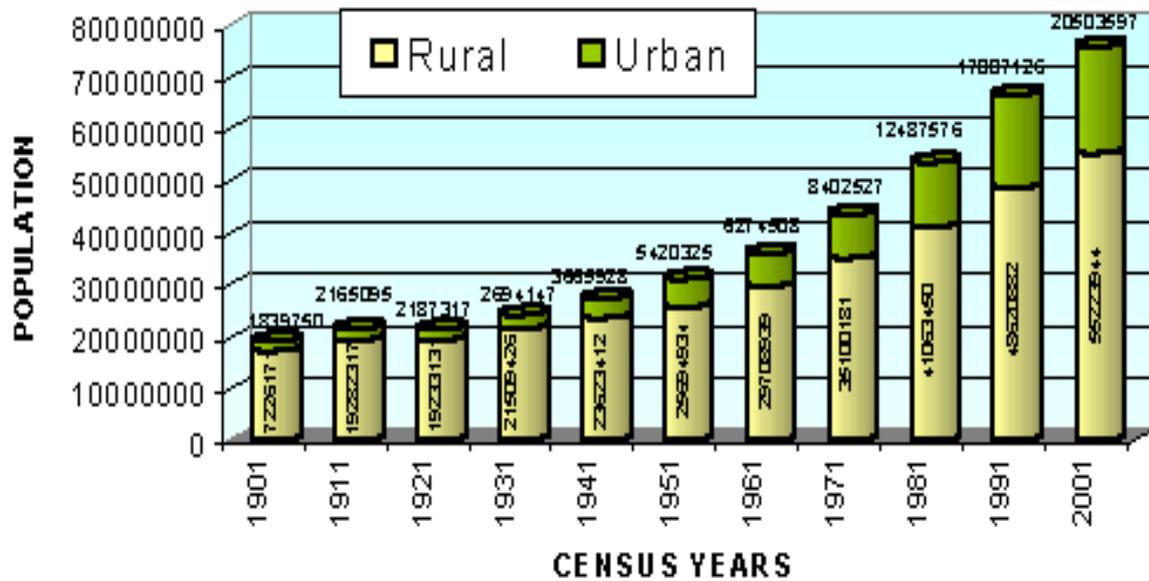
Demographic Information:

Andhra Pradesh, extending over an area of 2,75,045 sq. km., has a population of 75,727,541 with 275 persons per sq km as per 2001 census. Its population was 66,500,000 as per 1991 census. It shows in absolute terms that population has gone up by 9,219,533, thereby registering a decennial growth rate of 13.86%, which is lower than the growth rate of 24.20% during the last decade (1981-91).

Demographic Profile	
State Capital	Hyderabad
Area of the State	2,75,100 Sq. Kms
Population (2001 Census)	7,62,10, 007
Male Population	3,85,27,413
Female Population	3,76,82,594
Density of Population	277 persons per Sq. Km
Sex Ratio	978 (Females per 1000 Males)
Urban Percentage	27.04
Total No. of Households	1,70,04,305
Languages Spoken	Telugu, English, Urdu and Hindi
Religions followed	Hinduism, Islam and Christianity

In Andhra Pradesh, the top three districts with highest rural population are Mahaboobnagar (89.41%), Srikakulam (89%) and Nalgonda (86.74%). Major portion of population being in the rural areas there will be pressure on land for economic activities as well as natural resources. Represents the rural/urban population scenarios of the State for 1901 – 2001 is shown in the following table.

**Fig 2.1.1: DISTRIBUTION OF RURAL - URBAN POPULATION
(1901 -2001)**



Source: Census of India - 2001

The growth rate of population in the State had been showing an increasing trend since first Census in 1951, after the Independence of India. However, for the first time after Independence, decrease in the growth rate is observed in the State. Region-wise analysis shows that among the three regions of the State, Telangana has registered a higher growth rate of 17.66% as compared to 15.19% in Rayalaseema and 9.88% in Coastal Andhra.

Comparative statement of population details, Sex ratio, literacy levels, SC, ST families, workforce details of last three census (1981, 1991, 2001)

Sl. No.	Item	Unit	1981	1991	2001
(1)	(2)	(3)	(6)	(7)	(8)
1.	Total Population	Lakhs	535.50	665.08	762.10
2.	Growth rate over the previous Census	Percentage	+23.10	+24.20	+14.59
3.	Birth rate (during the decade)	Births per 1,000 population	35.1	26.0	19.1 *

Sl. No.	Item	Unit	1981	1991	2001
4.	Death rate (during the decade)	Deaths per 1,000 population	13.8	9.7	7.3*
5.	Density of Population	Persons per sq.km.	195	242	277
6.	No. of Households	Lakhs	108.85	139.37	170.04
	Rural	„	84.27	103.27	126.07
	Urban	„	24.58	36.10	43.97
7.	Household Size	Persons per household	5	5	4
	Rural	„	5	5	4
	Urban	„	5	5	5
8.	Male Population	Lakhs	271.09	337.25	385.27
9.	Female Population	Lakhs	264.41	327.83	376.83
10.	Sex Ratio	Females per 1,000 males	975	972	978
11.	Rural Population	Lakhs	410.62	486.21	554.01
12.	Urban Population	Lakhs	124.88	178.87	208.09
13.	Urban Population as a percentage of Total Population	Percentage	23.3	26.9	27.3
14.	(a) Scheduled Caste Population	Lakhs	79.62	105.92	123.39
	(b) Scheduled Caste Population as a percentage of Total Population	Percentage	14.9	15.9	16.2
15.	(a) Scheduled Tribes Population	Lakhs	31.76	41.99	50.24
	(b) Scheduled Tribes Population as a percentage of Total Population	Percentage	5.9	6.3	6.6

Sl. No.	Item	Unit	1981	1991	2001
16.	(a) Literates- Males	Lakhs	106.42	155.33	234.45
	(b) Literates- Females	Lakhs	53.93	89.55	164.89
	(c) Literates- Total Population	Lakhs	160.35	244.88	399.34
17.	(a) Literacy rate- Males	Percentage	39.3	55.1*	70.32
	(b) Literacy rate- Females	Percentage	20.4	32.7*	50.43
	(c) Literacy rate-Total Population	Percentage	29.9	44.1*	60.47
18.	(a) Workers - Total	Lakhs	245.06@	299.64@	348.94
	(b) Workers - Agriculture	Lakhs	157.33	195.16	216.92
	(c) Workers - Non-agriculture	Lakhs	87.73	104.48	132.02

@ Including Marginal Workers *: Excludes children in the age group 0-6 years.

*: Pertains to October 2006

- Source:**
1. Directorate of Census Operations, Andhra Pradesh.
 2. Registrar General of India, Ministry of Home Affairs, Grih-Mantralaya, New Delhi.

3.1 Land reform measures –

The Four basic types of tenancies are – Estate for years, periodic tenancy, tenancy at will & tenancy at sufferance. Tenancy types adopted in land records are – Permanent tenant, temporary tenant, fixed rent tenant and others.

The Andhra Pradesh Land Reforms (Ceiling on Agricultural Holdings) Act of 1973 was enforced on 1st January 1975. The unit of application of ceiling was not more than five members. 'Family' as defined in the Act consists of an individual, his spouse, their unmarried sons and unmarried minor daughters, major sons and daughters, married and widowed daughters, mother, father, brothers and sisters are not included in the family unit. The ceiling limit ranged from 10 to 54 acres depending upon the class and category of land. Exceptions were made to land held by the

government, religious, educational and charitable trusts, land devoted to plantations etc. Out of 8 lakh acres of surplus land, about 6 lakh acres was distributed. Balance distribution is pending due to legal litigation.

Government Land

The distribution of government land (commonly known as Banjar land) constituted an important component of the land reform programme in Andhra Pradesh. The distribution of 42 lakh acres of Government Wastelands in Andhra Pradesh is the highest to be distributed by any state in the country.

As per Government of Andhra Pradesh Policy Note on the Assignment of Government Lands the Andhra Pradesh Government has undertaken a crash Programme of assignment of lands to tribals in eight districts of Adilabad, Khamman, East Godavari, Warangal, West Godavari, Vishakhapatnam, Vijayanagaram, and Srikakulam. An estimated 12,80,968.22 acres of banjar land is identified in the tribal areas of the state.

3.2 Operational land holdings in the State under different categories and income.

Land holding:

Agriculture production depends, to a considerable extent, upon the size of the unit of cultivation. The data on land holdings in the state was collected from 1970-71 through Agriculture census. According to the census, the average size of the land holding per farmers in the state as per the Census of 1995-96 (1.36 ha), fragmentation of the family holdings, since more than 70% of rural population is dependent on Agriculture only. Hence it is difficult to implement any innovative practice or organize marketing of the produce on a collective basis from such small holdings particularly under rain fed conditions.

The distribution of land holdings and area according to different size classes is shown below.

Distribution of land holdings by size classes 2000-01 and 2005-06

Variation in number and area operated between 2000-01 & 2005-06 in Andhra Pradesh

(Number in '000s and Area in '000' ha)

Category of size group	No. of holdings		% to total holdings for 2005-06	% variation of no. of Holdings in 05-06 over 2000-01	Area operated		% to total area of 2005-06	% variation of area operated in 05-06 over 2000-01	Average size of holding (ha) for 2000-01	Average size of holding (ha) for 2005-06
	2000-01	2005-06			2000-01	2005-06				
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
Marginal	7023	7418	62	5.62	3104	3290	23	5.98	0.44	0.44
Small	2518	2639	22	0.81	3565	3731	26	4.67	1.42	1.41
Semi-Medium	1424	1444	12	1.42	3795	3834	26	1.02	2.67	2.66
Medium	501	487	4	-2.75	2855	2757	19	-3.46	5.7	5.66
Large	66	56	0	-15.13	1080	877	6	-18.7	16.3	15.64
ALL	11532	12044	100	4.44	14400	14489	100	0.62	1.25	1.2

The total number of operational holdings in the State are found to be 120.44 lakhs covering an area of 144.89 lakh hectares as against 115.32 lakh holdings in 2000-01 census and thereby accounting for an increase of 4.44 percent.

The area operated showed a marginal increase of 0.62 percent from 144.89 lakh hectares in 2005-06 to 143.99 lakh hectares in 2000-01. The average size of holdings in the State was 1.25 hectares in 2000-01 and declined showing 4% to 1.20 hectares in 2005-06.

Source: Agriculture Action plan 2009-10, Department of Agriculture, AP
Comprehensive Land Development Programme (CLDP)

The Rural Development Department of Andhra Pradesh had undertaken Comprehensive Land Development Programme since 2004-05 for developing the assigned lands under RIDF scheme supported by NABARD. This scheme is implemented with participatory approach fully involving the assignee households and the lands are fully developed to make them cultivable. So far 5.32 lakh acres of land belonging to 3.53 lakh beneficiaries is developed.

With the experience learnt in CLDP for developing assigned lands, the similar approaches are being attempted under NREGS to cover more areas with land development. Under NREGS, 4.96 lakhs acres of area is covered with land Development Programmes.

Chapter 4

4.0: Land Use Pattern

4.1 Land use planning and agriculture land in the state:

Systematic studies were carried out for better land use planning in Andhra Pradesh (India). As a part of these studies, soil maps are prepared for an area of 26 million hectares in 1:250,000 scale. The genesis and morphology of these soils were studied and they were classified. Utilizing these maps and the information generated from 22 automatic weather stations, land use planning was made for crop production on both arable and non-arable areas in all the 22 agricultural districts of Andhra Pradesh. Impact studies were also initiated. Awareness camps were organized for farmers and extension staff for effective use of soil map.

Information on soil physical constraints affecting crop growth was generated for the soils of Andhra Pradesh state. The physical constraints included crusting and hardening, shallow soils, soil erosion and runoff, subsoil hard pan, impeded drainage and high permeability. These constraints being highly location specific, suitable management practices were developed to make those soils productive. Location specific technologies developed in this regard are incorporation of paddy husk/powdered groundnut shells/composted coir pith/paddy and sorghum straws and green leaf manure for soils with crusting and hardening; formation of edges for shallow soils; kantoor cultivation, vegetative barriers and check dams for arresting soil erosion and runoff; crowbarring / chiselling up to a depth of 30 to 45 cm for soils with subsoil hard pan; sub-surface drainage for increasing the productivity of water logged soils and addition of tank sit/clay to reduce the permeability.

Suitable crops and cropping systems were identified to suit these soils. The areas deficient in secondary and micronutrients were delineated in all the 22 districts of Andhra Pradesh. Sulphur and zinc were found to be highly deficient in majority of the soils of Andhra Pradesh. Soil fertility maps were prepared for all the new trends. Corrective measures were developed for increasing the crop productivity in nutrient deficient soils

both by soil application and through foliar spray. Information was also generated on the extent of saline, saline – alkaline and acidic soils of Andhra Pradesh and location and situation specific reclamation measures were standardized.

Long term measures were recommended for arresting further soil degradation. Research on bio energy plantations were carried out for better utilization of marginal and degraded lands. Crop specific eco-friendly technologies were generated viz., integrated pest management, integrated nutrient management, bio fertilizers, bio pesticides and measures to reduce global warming. Suitable measures were worked out for minimizing the effects of natural calamities like cyclones, floods and severe droughts.

Agriculture Land:

The state of Andhra Pradesh is largely dependent on agriculture. About 70 percent of the total population depends on farming, and it is one of India's main rice-producing states.

The total geographical area of the state is 275.04 lakh hectares. Out of the total geographical area, net area sown, 22.6 percent is under forests, 9.8 percent is under current fallow lands, 9.6 percent is under non- agricultural uses and 7.5 percent is under barren and uncultivable land. During the year 2007-08, the net area sown is increased to 108.43 lakh ha. (5.9%) from 102.39 lakh ha. during 2006-07. This is attributed to favorable seasonal conditions prevailed in the state during 2007-08.

The major crops grown here include paddy, sugarcane, oilseeds, beans, and pulses (edible seeds from crops such as peas, lentils, and beans). Agriculture plays a vital role in the economy of the state.

Andhra Pradesh has three cropping seasons based on monsoons and availability of water from man made sources. The three cropping seasons are: kharif, rabi and summer.

The category of soil in the state ranges from poor coastal sands to highly fertile deltaic alluvium. Black soils cover 25 % of the total cultivated land and the alluvial loamy clay soils found in Krishna and Godavari deltas cover 5% of the cultivated area. The coastal sands occupy

only 3% while the remaining 1% is covered by laterite soils in certain pockets of the State.

4.2: Irrigated areas of the State:

Details of Land use Board, Land use conversion etc., are not ready available. These details will be furnished later.

4.3: Irrigated areas of the State:

Irrigation not only multiplies agriculture yields but also intensifies agriculture. Farmers shift to high value crops with greater investments. Potable water en-route towns and villages and water to industrial needs, develop rural areas and generate employment.

In the past, development in areas where irrigation facilities were made available through construction of projects is very impressive.

Irrigation potential of Andhra Pradesh.

Culturable Area	:	38.97 Million Acres
Irrigation Potential created (Including minor Irrigation)	:	12.881 Million Acres
Irrigation Potential proposed under Jalayagnam including contemplated projects.	:	10.28 Million Acres
Total Irrigation potential after Jalayagnam (including Minor)	:	23.172 Million Acres
Gross dependable yield from all the 40 river basins.	:	2764 TMC
Total utilization	:	1765 TMC

Besides, on an average about 3000 TMC of flood waters go waste joining sea from Godavari alone.

In spite of availability of abundant water and considerable cultivable area, the State has to face distressing conditions due to drought as the available waters are in surplus in some areas and joining sea, while in other areas water is scarcely available even for drinking. Due to dwindling flows, and indiscriminate use of water in the upper regions, the irrigation is in decline.

Andhra Pradesh strengths in water resources.

- 3 Major rivers namely the Godavari, Krishna, Pennar.
- 9 Interstate rivers.
- 28 Other minor rivers.
- Total surface water available 2764 TMC.
 - Godavari 1480 TMC.
 - Krishna 811 TMC.
 - Pennar 98 TMC.
 - Other basins 375 TMC.

Execution of irrigation projects under “Jalayagnam” along with the network canals and fields channels is going on briskly. Government is committed for executing all the irrigation projects by utilizing the water resources to the optimal level. Our experience during last couple of years has been highly encouraging. An ambitious plan of creating 69 lakh acres of new Ayacut and stabilizing 21 lakh acres by constructing 35 Major and 17 Medium project is under various stages of implementation.

Minor Irrigation:

Minor irrigation plays an important role in the development of agriculture and livelihoods particularly in drought prone areas and areas outside command of Major, Medium Projects. Its advantages include smaller capital outlays, favorable benefit cost ratio, shorter gestation periods, easy mobilization of local labour, early extension of irrigation facility to non-irrigated and under developed parts of the State. Minor Irrigation sector basically involves local community in its entire scope.

Construction of Tanks to provide Irrigation facilities to lands and drinking water to people is age old practice being followed for more than 500 years. Andhra Pradesh is having several independent tanks constructed by the then Kings and rulers serve the habitations. In addition to pre-independence tanks, several tanks were constructed after independence to create irrigation facilities in a shorter time and at lower cost. Tanks constructed near villages serve the habitations in more than one way such as drinking water to human beings, cattle and other domestic needs in addition to irrigation.

The total status of Minor Irrigation Ayacut is as follows:

Sl. No.	Description	Region	No. of tanks	Ayacut (Ac)
1	MI tanks of Ayacut > 100 acres	Andhra	4,623	11,44,638
		Telangana	5,045	12,46,124
		Rayalaseema	1,531	3,88,780
		Sub-Total	11,199	27,79,542
2	MI tanks of Ayacut < 100 acres	Andhra	23,785	5,68,765
		Telangana	30,820	6,68,141
		Rayalaseema	11,590	1,03,077
		Sub-Total	66,195	14,69,596
		Total	77,394	42,49,138

New Irrigation Creation:

It is estimated that there is a further potential of 6 to 7 Lakh acres possible in the state located mostly in high rainfall areas of North and North coastal parts and some scattered pockets throughout the State. In tune with the utmost priority being accorded to Irrigation sector by the Government many new tanks are already taken up and large number of new tanks are being taken up with different sources of funding viz., NABARD, JBIC, AIBP apart from state funds. Now Government of India has sanctioned an amount of Rs.1331.00 Crores under Prime Minister Special Relief package for Minor Irrigation to benefit the farmers in 16 Suicide prone Districts of Andhra Pradesh. At present 217 no. of new tanks are already grounded and in progress for creating an ayacut of 2.00 Lakh acres with cost of Rs.606 crores. Further, new tanks for creating an ayacut of 3.40 Lakh acres are being formulated with different sources of funding at a cost of more than 2000 crores.

Continuous effort is being made for identifying all possible and potential sources / sites of feasible new tanks / schemes to create maximum possible irrigation facilities taking advantage of various new

sources of funding already tied up. It is expected that with the sustained focus the entire feasible new irrigation potential would be identified, grounded and largely completed in the next 4-5 years.

New Irrigation Potential Creation Programme from 2007-08 onwards.

Year	New Ayacut (Ac.)	Stabilization (Ac.)
2007-08	1.10 Lakhs	2.50 Lakhs
2008-09	1.10 Lakhs	2.50 Lakhs
2009-10	1.20 Lakhs	2.25 Lakhs
Total	3.40 Lakhs	7.25 Lakhs

Andhra Pradesh Ground Water Scenario:

Availability of Groundwater

The gross area irrigated in Andhra Pradesh under all sources is around 5.7 million hectares, of which surface water accounts for 3.1 million hectares and the balance 2.6 million hectares comes from groundwater.

From the groundwater point of view, rock of formations in the State can be classified into three distinct categories of (a) hard rocks, (b) soft rocks and (c) alluvial formations. Groundwater in these rocks occurs underwater table, semi-confined or confined conditions. Groundwater is present in secondary porosity of the host rocks limited to the weathered and fractured zones; joints and bedding planes etc., In the soft rocks and alluvium, the inter-granular porosity contributes towards occurrence and movement of groundwater.

Nearly 85% of the State is underlain by hard rocks and the chief contributors of groundwater in these rocks are the fractured systems. These fractured systems as mentioned above are not uniformly distributed and have limited aerial and depth extent.

Rainfall is the source of recharge to groundwater and during the last decade. This source has become erratic and some times very low. The number of rainy days has also come down. Thus the recharge to groundwater bodies has come down. Apart from this people are resorting to use groundwater more often because, it is economical, easily available and consumes less time to ground a project, in view of the limited surface water resources and their uneven distribution. Thus the strain on groundwater aquifers mostly in upland areas is increasing day by day.

Trends in Groundwater utilization.

- During the last three decades Well population increased from 8.0 to 22.0 lac.
- Average annual growth rate of well population in the state is about 50,000 per year.
- Area irrigated through groundwater increased from 10 to 26 lac hectares.
- This constitutes about 45% of the total area irrigated.
- 80% of the drinking water needs are met through groundwater.

4.4. Common Property Resources (CPR):

Common Property Resources (CPRs) constitute an important component of the natural resource base of rural communities in India. CPR is defined as "a resource that becomes common property only when a group of people who have the right to its collective use is well defined, and rules that govern their use of it are set out clearly and followed universally".

The CPRs are broadly grouped into three categories- forests, water bodies, village common lands which includes- village pastures and grazing lands, protected and unclassed forests, wastelands, common thrashing grounds, watershed drainage, waste dumping places, community wells, tanks and ponds, villages sites, roads, rivers/rivulets and river beds, etc.

According to NSS survey in 1998, Nine percent (20.3 lakh ha.) of the state's geographical area is under CPRs which is lower than the country average figure of 15%. Availability of CPR per household is about 0.17 ha.

Availability of CPRs in India and AP (1998)

state	% CPR to Geo. Area	CPR per Household	Access to CPR (%HH)	% of CPR to Own land
Andhra Pradesh	9.00	0.17	20	25.37
India	15.00	0.31	63	36.90

Source: NSS 54th Round July 1999.

For 1999-2000 year the CPR land (non forest) accounts for 29.7 lakh ha which is about 10.8% of the total geographical area of the state. Between 1970 and 2000 CPR land area declined by 21.9% at state level. The decline of CPRs has been attributed to a number of factors such as government policies, population pressure, market forces, failure of management institutions, technological changes and environmental factors. Privatization of CPR land has occurred through both legal assignments (distribution of lands by the government) and illegal

encroachments by the private people. Both poor and rich have resorted to illegal encroachments. One of the important causes for depletion of CPRs is the breakdown of traditional management institutions and practices resulting in erosion of people's collective participation in management of CPRs.

The legal ownership of the CPRs rests with the Government (i.e. waste lands belong to the revenue department) in a de facto sense they belong to the village community. Village communities have customary user rights over these resources. Besides, though only those resources are treated as CPRs on which no individual has exclusive property rights, there are systems of customary rights which support traditional practices, such as gleaning or grazing in the field after harvest or in the fallow lands, which represent common rights on private property in certain situations.

Since 1990s, there has been a clear shift in the Governmental strategy for management of natural resources such as water, forests and wastelands. It has recognized the need for encouraging peoples' participation in management of resources. The introduction of Joint Forest Management, Participatory Irrigation Management and Watershed Management are the out come of this shift. Andhra Pradesh is one of the leading states in the country to introduce reforms in management of irrigation and forests sectors through creation of VANA Samrakshana Samithis (VSS), Water User Association etc. In addition to these Governmental efforts, a number of developmental support agencies and NGOs in different parts of the state have been actively working in the field of natural resource management.

Most natural resource development strategies since the early nineties have been strongly influenced by Sustainable livelihoods approach (SLA). SLA promotes poverty eradication, protection and better management of the environment, and places emphasis on people rather than resources. Strategies to develop CPRs that affect the lives of poor in India invariably adopted this approach.

The most recognizable programmes that were initiated by the various state governments across the country with SLA as the guiding

principle have been the Watershed development programme, Joint Forest Management Programme, Participatory Irrigation Management (PIM). In addition to the Govt. Programmes, NGOs and local communities have initiated interventions related to development of Natural resources- CPRs Viz., SDDPA intervention of Janam -Vanam in Kishtapur village, Mahaboobnagar dist, Chintato Nischinta- Tamarind plantation in CPR lands at Ananthapur, Fishing in shared water tanks- AP Rural Livelihoods Programme initiative, tank restoration activities by MARI, Warangal etc.

Recently, the Govt. of Andhra Pradesh has initiated a pilot intervention during 2008-09 jointly through Commissioner, Rural Development and NGOs to work in Chittoor and Anathapur for development of Common lands under NREGS-AP to rejuvenate the degraded common lands with an objective of enhancing the livelihoods support for the dependent communities. The Project Coverage is 23189 acres, 45 villages working through 23 NGOs working in two pilot districts.

Chapter – 6:

6. a: Administrative structure for implementing Watershed programme in the State.

Department of Rural Development is implementing the Watershed Development Projects in the State. At State level, Commissioner, Rural Development is implementing the Watershed Development Projects sanctioned by DoLR, GoI under the guidance of the Prl. Secretary, RD. Commissioner, RD is also implementing NREGS and Comprehensive Land Development Programme (CLDP). In implementation of Watershed projects, Commissioner, RD is assisted by the Spl. Commissioner, RD, Joint Commissioner, Watershed and Programme Officers.

At district level, District Water Management Agencies (DWMAs) functioning under the Chairmanship of the District Collectors are implementing the Watershed Projects. The DWMA is headed by a Project Director who is assisted by Addl. Project Director and Assistant Project Directors in implementation of Watershed Projects and other programmes of RD.

The Assistant Project Directors, located at Sub District level having a jurisdiction of about 6 to 8 mandals will be providing process related, technical and monitoring support to the PIAs and their field functionaries in implementation of watersheds, NREGS and CLDP programmes.

At Mandal level, the Mandal Parishad Development Officers will be closely monitoring the programme. The work estimates and pay orders etc., are generated in the Mandal Computer Centers.

Each mandal is provided with the Technical Assistants who are equivalent to WDTs to provide the Technical support to watersheds and other RD programmes in the cluster of GPs allocated to them.

Chapter – 7

7.0 Strategy for implementation of IWMP:

Andhra Pradesh has a total geographical area of 277 lakh ha. Out of this 158 lakh ha of area is identified for watershed treatment after excluding area under irrigation, Forest area, urban areas etc. So far 48 lakh ha of area is covered with watershed projects of DoLR, other line departments and External Aided Projects. Thus there is a balance of 110 lakh ha to be taken up in the 22 rural districts. Perspective plan for next 18 years i.e., upto XIV plan period is prepared to cover 87 lakh ha with an estimated cost of Rs.16130 crores. On average about 5 lakh ha will be taken up under IWMP every year for the next 18 years.

7.0.a Prioritization of Watershed Areas.

During the first year of IWMP i.e., 200-10, it is proposed to cover 4.5 lakh ha. Of area in the 16 DDP blocks of Ananthapur and 94 DPAP blocks of 11 DPAP districts in the State. The mandals falling in the DPAP / DDP blocks are prioritized following the criteria communicated by DoLR, GoI. In the prioritized mandals, the watershed areas covering 3000 to 5000 ha are identified for taking up IWMP projects for 2009-10.

Chapter – 8:

8. 0. Livelihood concerns:

Livelihood is defined as a set of economic activities, involving self-employment, and or wage employment by using ones endowments (both human and material) to generate adequate resources for meeting the requirements of the self and household on a sustainable basis with dignity for the purpose of the study. The activity is usually carried out repeatedly.

A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Chambers, R. & 1 Conway G., 1992) . Livelihood promotion is about creating environments that will support such activity. It aims to equip people with assets and opportunities so that their resilience to cope is enhanced and they can meet their basic needs on a sustainable basis.

Most people in rural Andhra Pradesh have been influenced by more than one intervention. It was not possible to attribute the impact on a given household or on a village to one specific program. The following are the salient features and their impact on the livelihoods at the household level.

1. Largest proportion of the income of the poorest-of-the-poor came from unskilled labor and trade and service (21%each), while agriculture provided largest part of the income for the other categories.
2. 53 per cent of poorest-of-the-poor had income levels lower than their total consumption expenditure, which itself was frugal (Rs 11,000/- p.a. for an average household of five members).
3. About 43 per cent of the population, especially the poorest-of-the-poor, reported enhanced indebtedness. A large segment of the poorest-of-the-poor and poor were meeting their consumption needs through credit and from sources other than income.
4. 40 per cent of the people also reported enhanced uncertainties in their cash flow with higher risk perception.

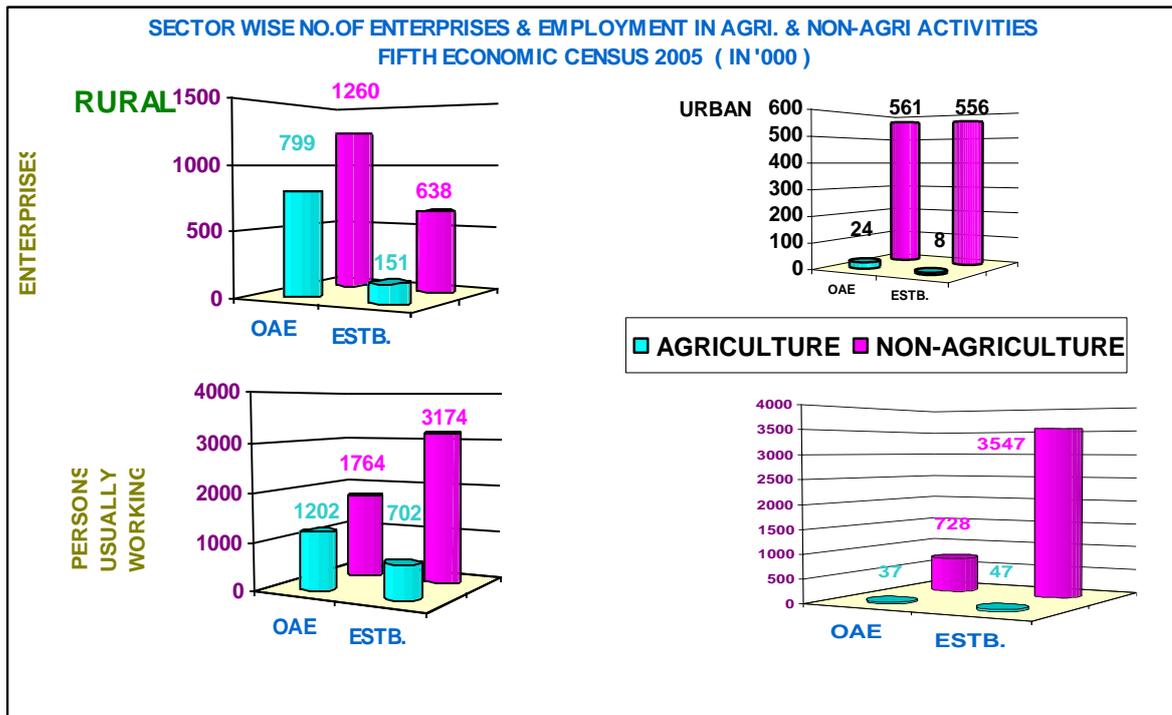
5. There has been a significant improvement in the situation of food-security. 61 per cent of the people reported increase in their food-security across all socio-economic categories.
6. 48 per cent of the people also reported reduction in migration, either in reduced number of people migrating or the duration of migration.
7. 64 per cent reported enhancement in their education levels and 63 per cent reported improvement in their skills in the last decade.

As per the Fifth Economic Census of 2005, 112.02 lakh persons are usually working in 39.97 lakh enterprises engaged in different economic activities other than Crop Production and Plantation in the State. The following table shows the number of enterprises under Agriculture and Non-Agricultural activities and percentage of employment during 5th Economic Census.

Table -1
NUMBER OF ENTERPRISES AND EMPLOYMENT THEREIN
(Number in nearest '000)

Type of Enterprises	Rural		Urban		Combined	
	5th EC	% of growth	5th EC	% of growth	5th EC	% of growth
<i>AGRICULTURAL ACTIVITY</i>						
1. All Enterprises	950	100.00	32	100.00	982	100.00
a) Own Account Enterprises	799	84.09	24	74.18	823	83.77
b) Establishments	151	15.91	8	25.82	159	16.23
2. Persons Usually working in Enterprises	1904	100.00	84	100.00	1988	100.00
a) Own Account Enterprises	1202	63.13	37	43.67	1239	62.31
b) Establishments						
i) Total	702	36.87	47	56.33	749	37.69
ii) Hired	587	30.81	39	46.87	626	31.49

Type of Enterprises	Rural		Urban		Combined	
	5th EC	% of growth	5th EC	% of growth	5th EC	% of growth
<i>NON - AGRICULTURAL ACTIVITY</i>						
1. All Enterprises	1898	100.00	1117	100.00	3015	100.00
a) Own Account Enterprises	1260	66.39	561	50.25	1821	60.41
b) Establishments	638	33.61	556	49.75	1194	39.59
2. Persons Usually working in Enterprises	4938	100.00	4275	100.00	9214	100.00
a) Own Account Enterprises	1764	35.72	728	17.03	2492	27.05
b) Establishments						
i) Total	3174	64.28	3547	82.97	6722	72.95
ii) Hired	2822	57.15	3079	72.02	5901	64.05
<i>AGRICULTURAL & NON - AGRICULTURAL ACTIVITY</i>						
1. All Enterprises	2848	100.00	1149	100.00	3997	100.00
a) Own Account Enterprises	2059	72.29	585	50.92	2644	66.15
b) Establishments	789	27.71	564	49.08	1353	33.85
2. Persons Usually working in Enterprises	6842	100.00	4359	100.00	11202	100.00
a) Own Account Enterprises	2966	43.35	765	17.54	3731	33.31
b) Establishments						
i) Total	3876	56.65	3595	82.46	7471	66.69
ii) Hired	3409	49.82	3118	71.53	6527	58.27



There are 39.97 lakh enterprises involved in Agricultural and Non-Agricultural activities in the State, of which, 26.44 lakhs (66.15%) are Own Account Enterprises and 13.53 lakhs (33.85%) are Establishments. Out of the total enterprises in the State, 9.82 lakh enterprises (24.57%) are involved in agricultural activities and 30.15 lakh (75.43%) are involved in non-agricultural activities. Only 8.23 lakh Own Account Enterprises i.e., those enterprises which are managed only by the members of the household without employing any hired worker are involved in agricultural activities with 31.13% of total Own Account Enterprises in the State and 18.21 lakh Own Account Enterprises (68.87%) are involved in Non-Agricultural activities. Out of the 13.53 lakh Establishments i.e., enterprises employing at least one hired worker, 1.59 lakh (11.75%) Establishments are engaged in Agricultural activities and 11.94 lakh (88.25%) are engaged in Non-Agricultural activities in the State.

FIFTH ECONOMIC CENSUS
DISTRIBUTION OF ENTERPRISES BY TYPE OF ENTERPRISES
TABLE NO.S -1
STATE : ANDHRA PRADESH

SL. No.	ACTIVITY	RURAL	URBAN	TOTAL
1	2	3	4	5
1	FARMING OF ANIMALS	805853	25169	831022
2	AGRICULTURAL SERVICE	45358	1573	46931
3	FISHING ETC.	98486	5547	104033
4	ALL AGRICULTURAL ACTIVITIES	949697	32289	981986
5	MINING & QUARRYING	13071	2189	15260
6	MANUFACTURING	509159	215032	724191
7	ELECTRICITY, GAS & WATER	2427	1009	3436
8	CONSTRUCTION	25164	15180	40344
9	SALE,MAINT.& REPAIR M/V & M/C	18538	27567	46105
10	WHOLESALE TRADE	30275	21977	52252
11	RETAIL TRADE	652994	484441	1137435
12	RESTAURANTS & HOTELS	86392	51467	137859
13	TRANSPORT & STORAGE	68938	65039	133977
14	POSTS & TELECOMMUNICATIONS	34158	34940	69098
15	FINANCIAL INTERMEDIATION	14084	15210	29294
16	REAL ESTAT BANKING & SERVICE	35245	42639	77884
17	PUB ADMIN DEFENCE SOCIAL SECTOR	45405	13658	59063
18	EDUCATION	99923	28079	128002
19	HEALTH & SOCIAL WORK	36879	22782	59661
20	OTHER COMMUNITY PERSONAL SERVICE	225443	75680	301123
21	OTHER ACTIVITIES	7	8	15
22	NON-AGRICULTURAL ACTIVITIES	1898102	1116897	3014999
23	AGRI. & NON-AGRICULTURAL	2847799	1149186	3996985

TYPES OF LIVELIHOODS IN ANDHRA PRADESH:

1. Natural Resource Based Livelihoods:

- Watershed development – for enhancing productivity and stabilizing incomes of dryland farmers : oilseeds, pulses, jowar
- Irrigated crops – paddy, chilly, turmeric, cotton – productivity and quality enhancement for local processing export marketing
- Horticulture development – mango, cashew, coconut, vegetables, flowers
- Joint forest management – NTFP, bamboo
- Fishery development – inland, marine
- Minor minerals – stone, sand
- **Livestock Development-** This includes milk production, poultry, rearing small ruminants such as sheep and goats, rearing pigs and pisciculture. In order to strengthen these activities the Project could suggest improved linkages to line departments and support services and concentrate on activities such as fodder development and breeding and yield enhancement techniques. The community could also be encouraged to diversify into new areas and add value to existing products.

2. Rural and Small Industries based Livelihoods:

- Agro-processing: paddy, groundnut, castor, pulses, cotton, chilly, turmeric, mango, vegetables, coir
- Livestock based processing: dairy, poultry, fish, prawns, leather, wool, meat
- Timber and NTFP: aromatics, medicinal, bamboo
- Stone processing, cement-based building materials
- Textiles: handloom (niche products), powerloom, apparel (low and high end)
- Metal, glass, ceramic and plastic products

3. Rural and Small Infrastructure based Livelihoods:

- Power - decentralised generation, biomass
- Power - local power distribution franchises
- Water for irrigation : tanks, canals, borewells

- Water - drinking water franchises
- Roads - construction and repairs, toll collection
- Warehouses
- Cold storages
- Market yards
- Media - print, radio, TV, cable
- Telecom - including voice and internet.

4. Service based Livelihoods:

- Transport of passengers and goods
- Wholesale Trade
- Retailing
- Health care, Veterinary care
- Education at all levels, Vocational training services
- Housekeeping and Security services
- Child care and Elder care services
- Entertainment services
- Hotels and restaurants
- Tourism including rural tourism
- Micro-finance services – thrift, credit, insurance
- Business and real estate services
- IT enabled services – call centers
- Higher value IT – software

5. Traditional Livelihoods:

- Weavers
- Pottery
- Carpentry
- Toddy tapers
- Black smith
- Barbers
- Laundry
- Others

6. Other local Enterprises:

- Tailoring
- General stores
- Handi craft making

- Making leaf plates, baskets, candels, bags, beedies
- Setting up Flour mills
- Vending vegetables, fruits etc
- Making pickles & chutneys etc
- Others

CAPACITY BUILDING OPPORTUNITIES FOR LIVELIHOODS IN AP:

Capacity-building as part of a livelihoods approach includes a range of possibilities: enhancing productive assets; skills training among individuals and groups in target communities; building capacity within implementing agencies; and awareness-raising at national and international levels through advocacy campaigns.

- Promoted District Level and Cluster Level Livelihoods Resource centers for provide building capacities of Primary and Secondary stakeholders of the Programmes implemented by the Commissioner, Rural Development
- Rich Experiences of Andhra Pradesh Rural Livelihoods Programme implemented with the support of DFID in 5 drought prone districts of AP
- Massive programme of Indira Kranthi Patham is run with a specific focus on Livelihoods of Rural poor with a small and large scale initiatives
- Pilots on different Livelihoods demonstrated by NGOs as joint initiatives with Commr. Rural Development
- Fund allocated for skill development in promotion of enterprises as part of programme
- Convergence with institutions working on Livelihoods for Capacity Building support- SRTRI, APMAS, WASSAN, BASIX, AKSHARA, ACCESS Livelihoods, ACCION Fraterna, etc
- Developed Training modules, reading material and films on livelihood promotion and interventions.

PER-CAPITA INCOME OF ANDHRA PRADESH AGAINST NATIONAL LEVEL AT CURRENT PRICES

(In rupees)

State	1999 - 2000	2001 - 2002	2002 - 2003	2003 - 2004	2004 - 2005 (R)	2005 - 2006 (P)	2006 - 2007 (Q)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Andhra Pradesh	15,507	18,630	19,568	22,041	23,755	26,226	29,582
ALL INDIA	15,881	17,782	18,885	20,895	23,199	25,956	29,642

PER-CAPITA INCOME OF ANDHRA PRADESH AGAINST NATIONAL LEVEL AT CONSTANT (1999-2000) PRICES

(In Rupees)

State	1999-2000	2001-02	2002-03	2003-04	2004 - 05 (R)	2005 - 06 (P)	2006-07 (Q)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Andhra Pradesh	15,507	17,260	17,486	18,961	19,871	21,334	22,835
ALL INDIA	15,881	16,764	17,101	18,317	19,325	20,858	22,553

Sources: Study report of APMAS on Livelihoods in Andhra Pradesh, 5th Economic Census report by Directorate of Economics and Statistics, GoAP, Hyderabad, 2007, Statistical abstract of AP 2008.

Chapter – 9:

9.0: Institutional arrangement for implementation of IWMP in the State.

Department of Rural Development will implement the IWMP Projects in the State. At State level, Commissioner, Rural Development is implementing the Watershed Development Projects sanctioned by DoLR, GoI under the guidance of the Prl. Secretary, RD. In implementation of Watershed projects, Commissioner, RD is assisted by the Spl. Commissioner, RD, Joint Commissioner, Watershed and Programme Officers.

At district level, District Water Management Agencies (DWMAs) functioning under the Chairmanship of the District Collectors will facilitate the implementation of the IWMP Projects. The DWMA is headed by a Project Director who is assisted by Addl. Project Director and Assistant Project Directors in implementation of Watershed Projects and other programmes of RD.

The Assistant Project Directors, located at Sub District level having a jurisdiction of about 6 to 8 mandals will be providing process related, technical and monitoring support to the PIAs and their field functionaries in implementation of IWMP watersheds.

At Mandal level, the Mandal Parishad Development Officers will be closely monitoring the programme. The work estimates and pay orders etc., are generated in the Mandal Computer Centers. Each mandal is provided with the Technical Assistants who are equivalent to WDTs to provide the Technical support to watersheds and other RD programmes in the cluster of GPs allocated to them.

9.1: State Level Nodal Agency (SLNA):

As desired by Government of India orders have been issued by the Government of Andhra Pradesh (R.D Dept.,) constituting State Level Nodal Agency (SLNA) vide G.O.Ms No.238 PR & RD (RD.III Dept.,) Dated. 04.07.2008. The Principal Secretary, Rural Development Department is the Chairman and the Commissioner, R.D is the CEO/Member Convenor. The SLNA consists of 16 members, out of which 8 members are the HODs of the line Departments. Representatives from NRAA (GoI) & CLNA (GoI) are also the members of the SLNA. The CGM (NABARD), CRIDA, ICRISAT and an NGO are the other members. SLNA will function as per the guidelines issued by DOLR (GoI) in para No. 27 of the New Common Guidelines – 2008.

9.3 Project Implementation Agency (PIA):

It was proposed to actively involve the intermediate Panchayats i.e., Mandal Praja Parishads in implementation of Watersheds Projects in Andhra Pradesh. The Mandal Parishad Development Officer with the support of the Technical Officers working at Mandal level will be able to provide the required support to the Watershed Committees & GPs in implementation of Watershed Projects. Through the Mandal Computer Centers, MPDOs will be able to closely monitor the programme.

In addition to the intermediate Panchayats, Central and State Level institutions like NIRD, MANAGE, APARD, WALAMTARI; Research Centers like ICRISAT, CRIDA and the KVKs can also be considered to act as PIAs.

9.4 Eligibility and selection procedure for WDTs:

Qualifications

- Candidate should be below 35 years of age.
- Should possess Degree / Diploma in Civil Engineering / Agriculture / Horticulture.

Procedure for selecting the candidates

- Screening the resume.
- Written /practical test.
- Group discussion.
- Final Interview by selection committee.
- Referral check.

The WDT members are generally selected by the PIAs. But to maintain the uniform standards, the DWMA (District Water Management Agency) will take up the selection process under the guidance of SLNA.

9.5 Institutional Arrangements at Village Level:

The Gram Sabha will constitute the Watershed Committees (WC) to implement the watershed project with the technical support of the WDT in the village. The WC will be registered under the Society Registration Act,

1860. The WC consists of representatives from SHGs / UGs / SC&ST / Communities / Grama Panchayat etc. Where a watershed covers more than one Village, separate WCs will be formed for each Village.

At village level, Gram Panchayat is a statutory body and plays a key role in implementation of programmes through Community based organizations viz., Labour Groups, Village Organizations, SHGs, User Groups etc.

Proposed initiatives under Institution Building:



1. Identification of target beneficiaries – based on poverty index, land holdings, community in all watershed villages.
2. Awareness building through social mobilization techniques-conduct of Kalajatha (IB processes), conduct of community festivals, Gram sabhas, film shows etc, Small Group meetings with CBOs, GP Members, Farmers, Labourers, Shepherds and Landless etc., Exposure visit for key functionaries, Grama Sabha, Resolution from GP.
3. Formation of Watershed Committees and registration.
4. Development of social capital-Placement, training, Support supervision and payments of staff working for CBOs and Gram Panchayats-watershed secretaries, Para workers, bookkeepers etc
5. Formation of User Groups for taking up watershed activities with composition of both men and women.

6. Federating SHGs into village level organization and nurture them towards effective implementation of w/s programme.
7. Orient Gram Panchayats towards programme objectives and developing Institutional systems between Village Organizations & Panchayat Raj Institutions.
8. Regular facilitation to WCs/ VOs /SHGs/ UGs/ & GPs for implementation of watershed components in coordination with DRDA and other line departments concerned.
9. Institutionalization of watershed approaches through establishment of financial, management and monitoring systems at all levels.
10. Prepare action plans and training calendars for initiating IB interventions in a participatory approach.
11. Conduct of trainings to the primary and secondary stakeholder on IB processes at District & Cluster Livelihoods Resource Centers.
12. Conduct of social audit for project interventions in watershed villages.
13. Conduct Vision building and develop phasing out strategy.
14. Maintain data base relating to IB and document successes and failures of interventions.

Chapter - 10:

10.0: Capacity building

a) Stake holders and capacity building requirements

S. No	Project Stakeholder	Critical capacity gaps
1	Target community	<ul style="list-style-type: none">• Awareness on watershed concepts, project guidelines, interventions & impacts• Formation of watershed committees, coverage of target beneficiaries• Participatory planning of watershed interventions• Monitoring watersheds with participatory approaches• Assets protection & maintenance• Social Audit process for WDPs
2	Gram Panchayats	<ul style="list-style-type: none">• Role of Gram Panchayats in implementation of watershed programme-• Monitoring DPRs and project implementation• Maintenance of assets (register) and CPR development• Post project Management
3	Watershed Committees	<ul style="list-style-type: none">• Basic concepts of watersheds, components, institutional structure• Registration under Societies Registration Act 1860- Bylaws• Formation and functional aspects of Watershed Committees• DPR preparation• Orientations on Cost effective structures in NRM, sustainable agriculture development, production systems and micro-enterprises• Office management• Fund management- effective payments• SSR• Gender Sensitization• Maintenance of accounts, book keeping and M-Book – WC Secretary

S. No	Project Stakeholder	Critical capacity gaps
4	Self Help Groups & Village Organizations	<ul style="list-style-type: none"> • Orientation on WDP • Revolving Fund Management • Skill development trainings on Micro Enterprises & Productivity Enhancement interventions
5	User Groups	<ul style="list-style-type: none"> • Usufruct rights • Formation and functional aspects of User Groups- guidelines • NRM Works and execution - Cost effective structures in NRM, SSR, sustainable agriculture & livestock development • WDF & Post project management of Assets • CPR management
6	Watershed Development Teams (WDTs)	<ul style="list-style-type: none"> • Watershed Concepts, objectives, approaches, components, funds etc • Social Mobilization & Institution building- Organizing & nurturing WC, UGs, VOs etc • Planning process and guidance – detailed resource development plans • Role of WDT in watershed implementation • Participatory training methodologies • CPR management and equitable sharing • Technical aspects of NRM works- engineering surveys, drawings, cost estimates, mark out, measurements, M-Book recording etc • Production systems & Micro enterprises- encouraging CIG approach, in-ward marketing, product processing for value addition etc • Gender policy & integration
7	Project Implementing Agencies (PIAs)	<ul style="list-style-type: none"> • Social Mobilization & Institution building – CBOs & federations • Preparation of DPRs for watershed projects • Low cost technologies in NRM, new production systems & Micro enterprises • Social Audit process

S. No	Project Stakeholder	Critical capacity gaps
		<ul style="list-style-type: none"> • Training Needs assessment • Monitoring of project accounts, financial management aspects • Preparations for Post Project Management • MIS systems
8	DRDA/ZP cell	<ul style="list-style-type: none"> • Institutional arrangements and their functions • Preparation of preliminary project report of watershed projects • Empanelment procedures for PIAs • Preparation of strategic and annual action plans for WDPs • Fund flow mechanisms and management aspects • Convergence approaches with related institutions • Technical issues and qualitative processes in implementation of IWMP • Promotion of Livelihood Resource centers • MIS systems
9	SLNA	<ul style="list-style-type: none"> • SLNA-Roles & responsibilities in watershed implementation • Drafting state specific operational guidelines for IWMP • Preparation of perspective and strategic plan for watershed development for the state • Technical aspects and qualitative processes of WDPs • Development of Capacity Building strategic plan for the state • Selection of WDPs as per GMIS • Monitoring, Learning & evaluation systems for WDPs - establishment and management of state level data cell • Constituting Consortium of Resource Organizations • Partnerships with relevant institutions – Agriculture, Animal Husbandry, CBOs &

S. No	Project Stakeholder	Critical capacity gaps
		Livelihoods promoting institutions etc • Documentation of audio-visual aids, manuals, reports etc

b) Strategies for capacity building (Briefly describe about strategies for capacity building)

❖ ***Decentralized CB strategy through Livelihood Resource Centers.***

The Department of Rural Development, AP has adopted decentralized Capacity building strategy through establishment of 22 District level and 55 Cluster level Livelihood Resource Centers in all the districts to provide need based capacity building and training services to the primary & secondary stakeholders involved in the implementation of Watershed Programme and all other Rural Development Programmes. These centers are provided with a Course Director and an assistant to manage them. LRCs are provided with permanent well designed buildings and training equipment.

CB processes in LRCs

- i. Training Needs Assessments
- ii. Preparation of Annual training Calendars
- iii. Approvals and fund releases
- iv. Evolved Cost Norms for CB services
- v. Identification of pool of Resource persons
- vi. Developing modules, printing & dissemination
- vii. Corpus generation for sustainability
- viii. Viability assessments
- ix. Post training assessments

❖ ***Consortium approach –***

A network of **28** Resource Organizations at state level constituted as Consortium in December 2004 to provide intensive Capacity building inputs to the Community based

Institutions & various Secondary stakeholders of Rural Development programmes.

CB Support.

- i. Providing Professional and technical support to D/CLRCs
- ii. Developing training modules by various partners of Consortium independently/ in partnerships for use at LRCs
- iii. Identification of Pool of resource persons, provide ToTs and handholding support
- iv. Initiate process monitoring of CB services in watershed projects by CB institutions at different levels
- v. Creating favorable policy support to CB agenda

❖ ***Community Resource persons (CRP) strategy –***

Practitioners from among community will be identified as CRPs. They will be provided with training skills and additional inputs in order to groom them as potential trainers. These CRPs will be drawn from Farmers, SHGs / VOs, UGs and beneficiaries of the ongoing projects already in implementation. Based on the field demand, training modules will be developed and CRPs move around in villages as roving trainers to deliver these modules. Their services will also be utilized at LRC level for which they will be paid resource fee as per cost norms developed by the Commissioner, RD.

❖ ***NGO collaboration for professional & technical value addition support-***

NGOs have been playing a very complimentary role since very long time in the areas of Institutional & Capacity Building in watershed programme of Andhra Pradesh. While AP Rural Livelihoods Project was in implementation, collaboration with NGOs was in different folds- as PIAs, External & Internal Resource Organizations, Professional and Anchoring support to

LRCs, Pilot initiatives, Process monitoring, Modules development etc.

Presently, their role is envisaged to provide value addition support to LRCs in Capacity Building plus agenda - promotion of Livelihoods, demonstration of models, information dissemination etc. As consortium partners, they shall continue to contribute to CB agenda – as resource organizations for thematic areas, developing modules etc

❖ **Grading institutions & Watershed Development Projects:**

Tools for assessing the performance of the WCs and Village organizations shall be developed which shall be administered at specified intervals. Based on the performance in CB parameters and overall grades, CB inputs shall be provided to the target communities.

❖ **Functional Specialists for Capacity Building at all levels-**

Realizing the importance for CB in effective implementation of any programme, Technical Support Unit is constituted at State Level with functional specialists from various sectors presently designated as Asst. Project Coordinators.

- i. APC (Institution & Capacity Building) is responsible for conceptualizing CB strategies, facilitating action plans, preparing budgets, monitoring CB progress, maintaining MIS data base, performance assessment of LRCs etc.
- ii. APD (CB) - There is a demand from all the Project Directors of DWMA's to position One specialist at district level to coordinate with all LRCs, develop district specific CB strategies and action plans, organize and monitor quality of the programmes etc. Presently, Course Director, DLRC is playing this role.
- iii. Pool of Resource Persons- Specialists in thematic areas of watersheds possessing training skills are identified within department, Line departments, NGOs, individuals,

practitioners, CBOs and are empanelled as Pool to act as resource persons at LRCs

c) Capacity building programme to be taken up:

- ❖ **Awareness programmes at community level-** Kalajathas, campaigns, orientations, exposures, displays etc.
- ❖ **Induction training to staff-** Village immersions, Trainings on PRA techniques, social mobilization and Institution building, participatory planning (DPRs), Technical aspects of NRM, Production systems & Micro enterprises, gender concepts, book keeping etc.
- ❖ **Workshops** – Developing operational guidelines, MIS systems, convergence with other institutions, Training Needs Assessments, modules & manuals development etc
- ❖ **Exposures** – For project staff and primary stakeholders to NRM, Livelihood interventions, Institutions, watersheds etc at National/state/District levels.
- ❖ **Training of Trainers programme (ToT)** for identified resource persons on prioritized modules.
- ❖ **In house and field based trainings to Primary stakeholders at CLRCs and secondary stakeholders at DLRCs-** Watershed concepts, social mobilization & institution building, Gender sensitization, NRM based livelihoods & technical aspects of NRM structures, Agriculture & Livestock development interventions, Micro-enterprises, financial management etc.
- ❖ **Expert interactions-** Focus meetings with experts to be organized at state and district levels for introducing new technologies, taking correction measures etc.
- ❖ **Demonstrations-** In the core component areas of NRM, Production & Enterprises, field demonstration are to be promoted in order to enable practical learning by the trainees.
- ❖ **Mana TV Channel** – Orientations to larger target groups through telecasting related films combined with interactions on Mana TV channel run by the IC & T Department.

d) Institutional arrangements made for capacity building at State level, District level, Block level and Village level.

❖ **STATE LEVEL:**

Commissionerate, Rural Development has established Technical Support Unit- SLNA for overall CB coordination. Functional Specialists in Capacity Building is positioned as Asst. Project Coordinator in the state office in TSU to develop & facilitate CB processes. Commissioner, RD made an MoU with AMR-AP Academy for Rural Development, recognized as an apex institution for organizing Capacity building events to PR & RD departments. The role of TSU is to identify the training needs of stakeholders at various levels, plan, coordinate, quality in delivery, provide hand hold support, monitoring performance of LRCs, progress etc. APARD organizes trainings, develops modules and material. These initiatives are supported by the Consortium of Resource Organizations.

❖ **DISTRICT LEVEL:**

At district level, District Livelihood Resource Centers are established in all the districts of AP. These centers focus on training of Secondary stakeholders of the RD programmes. DLRCs are run by the Course Director and supported by an Assistant.

❖ **CLUSTER LEVEL :**

GoAP in 2004 sanctioned 55 CLRCs to build capacities of primary stakeholders of the watershed communities. For every 80-100 watersheds, 1 Cluster Livelihood Resource Center was established. Each CLRC is provided with a Course Director and an assistant to provide CB services. A management Committee with the Asst. PD of the cluster as chairperson, Course Director as Convener and other APDs falling in the same cluster jurisdiction, in order to ensure effective delivery of CB services and functioning of the center. Resource persons are identified and placed for training purposes.

❖ **VILLAGE LEVEL:**

Pool of Community Resource persons are identified in different thematic areas. These CRPs goes around watershed villages with focused modules and conduct village level orientations/trainings to the target communities. PIAs will play a key role in planning and monitoring CB events and ensuring trainings to all the watershed beneficiaries. WDTs are responsible for ensuring proper attendance by the participants. Resource Persons from CLRCs too conduct technical trainings for primary stakeholders at village level.

e. Training manuals developed for training programme and field training proposed.

Training material already developed:

i. Training Modules:

- Technical Aspects in Watershed
- Rural Livelihoods
- Hariyali Watershed Development Module
- PDs Modules VOI –I, Vol –II, VOI-III
- Participatory Net planning
- Pantalo Samagra Poshakala Yajamanyam
- Varshadara Pantala Metta Sagulo Neetiyajamanyam
- Enterprise Promotion
- Financial Management
- GIS Module
- D/CLRC Modules
- CBOs Module
- Gender
- PE Module- Seed Development

ii. Reading Material:

- Business Development Manual for District & Cluster Livelihood Resource Centers
- Managerial Skills for Course Directors
- Operational Manual
- Process Monitoring
- Technical Aspects of Watershed
- Hariyali Watershed Development
- Zeeva Indhanala Sagu Vidhanalu
- Bio Diesel
- Water and Sanitation

iii. Films:

- Soil and Water Conservation
- Water harvesting
- Adopting to the future
- Bio diesel
- Kisan kimandi
- Percolation tanks
- Using diversity
- Community Water resource Management
- Hydram Jalpump
- Jalachaitanyam Paddy
- Vegetable Cultivation
- Rajendrasingh
- Ralegao Siddi
- As the policy makers see it
- Interactive Module for Watershed Devt.
- Neta Film
- Livelihoods
- Chinukulu Techina mutyalu
- Agro products
- Natural Regeneration
- Drip System
- APRLP Films

MATERIAL PROPOSED TO BE DEVELOPED

1. Revisiting of existing material as per new guidelines and carry out changes.
2. DPR preparations process.
3. Operational guidelines.
4. Video films – based on common guidelines on NRM, Productivity enhancement and enterprise promotion interventions.
5. Posters and other visual aids for mass communication.

Table: SPSP 32: Details of IEC activities* (MIS Table-M(CB)3)

1	2	3	4	5	6
S. No.	District	Activity	Executing agency	Estimated expenditure for XI Plan period (Rs. in lakh)	Expected Outcome (may quantify, wherever possible)
1	Adilabad	Social mobilization , awareness generation			<ul style="list-style-type: none"> ❖ Watershed community is fully aware of watershed programme and its components ❖ Community actively participates in the project planning, implementation & monitoring phases ❖ Target beneficiaries are empowered to access their entitlements
		(i) Print Media	TSU		
		Information booklets		10000	
		Posters		5000	
		Pamphlets		25000	
		(ii) Electronic Media			
		Message through radio	DWMA	140000	
		Television	TSU	140000	
		documentary and short films	TSU		
		(iii) Outdoor Media	District Water Management Agencies		
		wall paintings	DWMA	100000	
		Display Boards	DWMA	300000	

1	2	3	4	5	6
S. No.	District	Activity	Executing agency	Estimated expenditure for XI Plan period (Rs. in lakh)	Expected Outcome (may quantify, wherever possible)
		Display of watershed models	DWMA	100000	
		Banners (Flexi)	Project Implementing Agencies	150000	
		Mike publicity	PIA	200000	
		(iv) Internal Personal Communication			
		Community meetings, focus group discussion	PIA	75000	
		(iv) Dance/Drama			
		Kalajathas	PIA	1000000	
		Total		2870000	
2	Ananthapur	Social mobilization, awareness generation	TSU, DWMA & PIA	2870000	- Do-
3	Nalgonda	Social mobilization, awareness generation	TSU, DWMA & PIA	2870000	- Do-
4	Mahaboobnagar	Social mobilization, awareness	TSU, DWMA	2870000	- Do-

1	2	3	4	5	6
S. No.	District	Activity	Executing agency	Estimated expenditure for XI Plan period (Rs. in lakh)	Expected Outcome (may quantify, wherever possible)
		generation	& PIA		
5	Ranga Reddy	Social mobilization, awareness generation	TSU, DWMA & PIA	2870000	- Do-
6	Kadapa	Social mobilization, awareness generation	TSU, DWMA & PIA	2870000	- Do-
7	Kurnool	Social mobilization, awareness generation	TSU, DWMA & PIA	2870000	- Do-
8	Chittoor	Social mobilization, awareness generation	TSU, DWMA & PIA	2870000	- Do-
9	Khammam	Social mobilization, awareness generation	TSU, DWMA & PIA	2870000	- Do-
10	Prakasam	Social mobilization, awareness generation	TSU, DWMA & PIA	2870000	- Do-
11	Medak	Social mobilization, awareness generation	TSU, DWMA & PIA	2870000	- Do-
12	Srikakulam	Social mobilization, awareness generation	TSU, DWMA & PIA	2870000	- Do-
13	Krishna	Social	TSU,	1677500	- Do-

1	2	3	4	5	6
S. No.	District	Activity	Executing agency	Estimated expenditure for XI Plan period (Rs. in lakh)	Expected Outcome (may quantify, wherever possible)
		mobilization, awareness generation	DWMA & PIA		
14	Guntur	Social mobilization, awareness generation	TSU, DWMA & PIA	1677500	- Do-
15	Vizianagaram	Social mobilization, awareness generation	TSU, DWMA & PIA	1677500	- Do-
16	Vishakapatnam	Social mobilization, awareness generation	TSU, DWMA & PIA	1677500	- Do-
17	East Godavari	Social mobilization, awareness generation	TSU, DWMA & PIA	1677500	- Do-
18	West Godavari	Social mobilization, awareness generation	TSU, DWMA & PIA	1677500	- Do-
19	Nellore	Social mobilization, awareness generation	TSU, DWMA & PIA	1677500	- Do-
20	Nizamabad	Social mobilization, awareness generation	TSU, DWMA & PIA	1677500	- Do-
21	Warangal	Social mobilization, awareness generation	TSU, DWMA & PIA	1677500	- Do-

1	2	3	4	5	6
S. No.	District	Activity	Executing agency	Estimated expenditure for XI Plan period (Rs. in lakh)	Expected Outcome (may quantify, wherever possible)
22	Karimanagar	Social mobilization, awareness generation	TSU, DWMA & PIA	1677500	- Do-
		GRAND TOTAL		51215000	

From Column No. 2, total No. of Districts implementing the programme, from column no.3 no. of activities, from Column no. 4, total no. of agencies, from column no. 5 total estimated expenditure may be given at the end of the table for the entire State.

Chapter – 12:

12.0: Expected outcomes of IWMP:

- Degraded areas get treated with soil moisture conservation, rain water harvesting to replenish the ground water, improvement in vegetation etc., through systematic ridge to valley approaches.
- Contiguous areas of 8 to 10 micro watersheds get treated simultaneously enabling scientific planning and ensuring effective impact.
- Effective community institutions are built to thrive for sustainable management of all the natural resources to support economic development at village level.
- Availability and quality of drinking water improves.
- More areas brought under cultivation and Productivity of Agriculture and Livestock improves considerably.
- The capacities of CBOs enhanced for the adoption of pro-poor, gender equitable approaches to the management of resources.
- Capacities of Government Organisations (GOs) / NGOs / Panchayati Raj Institutions (PRIs) enhanced to support pro-poor, gender sensitive Sustainable Rural Livelihoods initiatives.
- Higher income and employment options identified and pursued with the support of project and other government programmes.
- Innovative approaches tested and developed to enhance the impact, equity and sustainability of 'watershed plus' approaches.
- The approaches developed by the project are disseminated widely in all districts.
- Effective convergence systems emerge and sustain among various line departments.