

This chapter is based on the survey conducted by the researcher in the three selected watershed villages where Hariyali –IV scheme was implemented. Watershed projects under Hariyali-IV scheme were sanctioned to the selected watershed villages during the period 1st April 2006 to 31st March, 2007. Intensive field study was done by the researcher to have indepth understanding of the performance of the watershed programme in Anantapuram district in general and the selected watershed villages in particular.

For the field study, three watershed villages from three different revenue divisions have been selected on a method of random.

List of Selected Villages

Table 6.1 depicts the list of selected villages.

Table – 6.1

LIST OF SELECTED VILLAGES

Sl. No.	Revenue division	Revenue mandal	Name of the clusters	Village selected
1.	Anantapuram	Anantapuram	B.K. Samudram	Kandukuru
2.	Dharmavaram	Raptadu	B.K. Samudram	Yerragunta
3.	Penukonda	Penukonda	Kottacheruvu	Duddebanda

Source: Field Survey.

The researcher has collected the required data for analyzing the research topic from 150 beneficiaries (50 from each selected watershed village), 50 officials connected with the implementation of the programme and 43 non-officials political representatives). The primary data has been collected through questionnaires-structured and unstructured in case of uneducated beneficiaries. Informal interviews were also conducted to the non-officials for obtaining required information.

For effective analysis, the researcher divided survey report into 4 Sections i.e., Section-I explains the socio-economic profile of the three selected villages- Kandukuru, Yerragunta and Duddebanda under Hariyali-IV scheme; Section-II details the perception of the beneficiaries; Section-III gives the perception of the officials and Section -IV explains the perception of the non-officials on watershed management programme.

SECTION-I

Socio-economic profile of the three selected villages viz., Kandukuru, Yerragunta and Duddebanda under Hariyali-IV scheme is given below:

Kandukuru

Kandukuru micro watershed is located in Kandukuru Gram Panchayat of Anantapuram mandal, Anantapuram district. The village watershed is located at a distance of 12 kms. From mandal and district headquarters connected with pucca road. The total geographical area of the watershed is 1325 hectares and net treatable area is 925 hectares. The village receives 534 mm average annual rainfall. The village temperature ranges between 40°C to 22°C. The major stream in the watershed is Padagotta Vanka.

The total population of the village is 3261. The male population is 1670 and female population is 1591. The literacy rate of the village is 54.8 per cent of this male literacy is 58 per cent and their counterpart is 41 per cent. There are 902 households in the village of which 115 are marginal farmers, 247 small farmers, 109 big farmers

and 431 are landless labourers. The total livestock in the village is 2954. The major crops in the village is groundnut, paddy and chilly.

The infrastructure facilities available in the village are three anganwadis, one primary school, one secondary school, one post office, one primary health care center, one veterinary center and four milk collection centers.

The area under irrigation is 154 hectares which is just 7.5 per cent of the cultivated area, 1065 hectares is rainfed. The net sown area in the village is 1219 hectares. The major source of irrigation is bore wells and open wells. The number of bore wells in the village is 108 and open wells is 17. The ground water table is 12 to 125.5 mm from the ground level. The drinking water is fluoride content. There are 56 SHGs, 24 UGs and one village organization in the village.

Under Hariyali-IV scheme, gully control works (6), rock fill dams (4), farm ponds (2), check dams (8), construction of water troughs (4), block plantation, livelihood activities and production enhancement works were carried out in the village. An amount of Rs.25,50,000/- sanctioned to the village under Hariyali, Rs. 16,17,607/- was spent on various works.¹

Yerragunta

Yerragunta micro watershed is located in Yerragunta Gram Panchayat of Raptadu mandal, Anantapuram district. The village is located at a distance of 18 km. from its mandal headquarters and 26 km. from the district headquarters and the village is well connected with road. The total geographical area of the watershed is 1815 hectares and net treatable area is 1580 hectares. The average annual rainfall of the village is 520 mm. The temperature ranges between 42°C and 24°C. The major streams in the watershed village are Pandameru Vanks, Nallimanu Vanka, Cheruvu Vanka and Muddala Vanka.

The total population of the village is 1035 of which 543 are males and 492 are females. The literacy rate of the village is 49.5 per cent. The male literacy rate is 54 per cent and female is 46 per cent.

The total number of households in the village is 261, 30 are marginal farmers, 78 small farmers, 74 big farmers and 79 landless labourers. The total livestock in the village is 1177. Groundnut and paddy are the chief crops in the village. The primary facilities available in the village are three anganwadis, one primary and one secondary school, one post office and five milk collection centers.

The area under irrigation is 660 hectares and 920 hectares is rainfed. The net sown area in the village is 1580 hectares. The major source of irrigation is bore wells (251). The ground water level in the village is 32 mts. There is scarcity of water in the village and water is fluoride content. There are 27 SHGs and 29 UGs in the village.

Under Hariyali-IV scheme rock fill dams (21) farm ponds (3), check dams (8), repairs to ponds (1), percolation tanks (3), restoration of tank (1), construction of water troughs (3), construction of trenches, horticulture and avenue plantation, tamarind tree plantation, supply of bio-gas, village wood lots, livelihood activities and productivity enhancement activities are under taken. The amount sanctioned to the village under Hariyali-IV is Rs.25,50,000/- and the amount spent was Rs.19,18,750/- on various watershed works.²

Duddebanda

Duddebanda micro watershed is located in Duddebanda Gram Panchayat of Penukonda mandal of Anantapuram district. The village is located at a distance of 12 kms. from mandal headquarters and 58 kms. from district headquarters. It is connected with pucca road. The total geographical area of the watershed village is 23732 hectares and net treatable area is 1489 hectares. The village receives 512 mm of average annual rainfall. The village temperature ranges between 39°C to 25°C.

The total population of the village is 2549 of which 1304 are men and 1245 are women. The literacy rate of the village is 58 per cent male literacy is 60 per cent and female is just 40 per cent. The total number of households in the village is 642 of which 82 are marginal farmers, 122 small farmers, 76 big farmers and 362 are

landless farmers. The total livestock in the village is 9655. The major crops in the village are groundnut, maize and sunflower.

The infrastructure facilities available in the village are 3three anganwadis centers, one primary school, Gopal Mithra services for livestock, one primary health care center, four milk collection centers and one post office.

The total irrigated area in the village is 657 hectares where as rainfed area is 1612 hectares. The total net sown area is 2269 hectares. The major source of irrigation in the village is Handri Neeva Canal, 150 bore wells and 90 open wells. The ground water level is 13 to 14 mts. There are 19 SHGs and 26UGs in the village.

Under Hariyali-IV farm ponds (1), check dams (7), rock fill dams (15), repair to check dams (4), construction of cattle troughs (4), dug out ponds, barren hill afforestation, avenue and block plantation, livelihood activities and productivity enhancement activities are undertaken. The total amount sanctioned is Rs.25,50,000/- and the amount spent is Rs.22,35,681/- on various works in the village.³

SECTION-II

Perception of the Beneficiaries

Table 6.2 depicts the social profile of the beneficiaries in the sample villages.

Table 6.2

THE SOCIAL PROFILE OF THE BENEFICIARIES IN THE SAMPLE VILLAGES

Sl. No.	Village	No. of beneficiaries	Social community			
			SC	ST	BC	Others
1.	Kondukuru	50	10	3	24	13
2.	Yerragunta	50	13	--	26	11
3.	Duddebanda	50	11	2	28	9
	Total	150	34 (22.7)	5 (3.3)	78 (52)	33 (22)

Note : Figures in parentheses indicate percentages.

Source: Field Survey.

Out of the 150 respondents, 78 (52 per cent) are from Backward Castes followed by 34 (22.7 per cent) from Scheduled Caste, 5 (3.3 per cent) from Scheduled Tribes and 33 (22 per cent) from other castes. As derived from the table majority of the sample respondents (beneficiaries) are from Backward Caste (52 per cent) followed by Scheduled Caste (22.7 per cent).

Profile of Sex and Age in the Sample Villages

Table 6.3 shows the profile of sex and age in sample villages.

Table 6.3

THE PROFILE OF SEX AND AGE IN THE SAMPLE VILLAGES

Sl. No.	Village	No. of beneficiaries	Sex		Age		
			Male	Female	20-40	41-60	Above 60
1.	Kandukuru	50	28	22	20	22	8
2.	Yerragunta	50	31	19	22	24	4
3.	Duddebanda	50	30	20	17	30	3
	Total	150	89 (59.3)	61 (40.7)	59 (39.3)	76 (50.7)	15 (10)

Note : Figures in parantheses indicates percentages.

Source: Field Survey.

The above table explains that of the total respondents of 150, 89 (59.3 per cent) are males and 61 (40.7 per cent) respondents are females. Of the total respondents, 76 (50.7 per cent) are found in the age group of 41-60 years, 59 (39.3 per cent) respondents fall in the age group of 20-40 years and only 15 (10 per cent) respondents are above 60 years. In the sample, respondents belonging to age group of 41-60 years are more in number and also male numbers are in majority in the sample.

Status of Literacy and Education in the Sample Villages

Table 6.4 depicts the status of literacy and education in the sample villages.

Table 6.4**THE STATUS OF LITERACY AND EDUCATION IN THE SAMPLE VILLAGES**

Sl. No	Village	No. of beneficiaries	Literacy						Education		
			Literates			Illiterates			Primary	Secondary	Higher
			Male	Female	Total	Male	Female	Total	Below 7 th Class	8 th Class to Inter	Degree & above
1.	Kandukuru	50	18	10	28	10	12	22	9	12	7
2.	Yerragunta	50	25	9	34	6	10	16	10	17	7
3.	Duddebanda	50	23	8	31	7	12	19	11	12	8
	Total	150	66 (44)	27 (18)	93 (62)	23 (15.3)	34 (22.7)	57 (38)	30 (32.2)	41 (44.1)	22 (23.7)

Note : Figures in parentheses indicates percentages.

Source: Field survey.

The literacy rate is 62 per cent among the respondents which is significantly less than India's literacy rate (74.04 per cent, 2011 Census) and Andhra Pradesh literacy rate (67.7 per cent, 2011 census). Out of total 150 respondents 93 (62 per cent) are literates and the remaining 57 (38 per cent) are illiterates. The literacy rate among male respondents is 44 per cent (66 respondents) and female respondents is 18 per cent (27 respondents). The literacy rate in the selected villages just reflect the same pattern at the Central and State level with male literacy more than female literacy.

Regarding the education of the respondents, 41 respondents (44.1 per cent) of 150, studied secondary education (8th to Inter), followed by 30 respondents (32.2 per cent) studied primary education (Below 7th Class) and lastly only 22 respondents (23.7 per cent) studied higher education.

Profile of the Size of the Farmers and Economic Status

Table 6.5 shows the profile of the size of the farmers and economic status.

Table 6.5

PROFILE OF THE SIZE OF THE FARMERS AND ECONOMIC STATUS

Sl. No.	Village	No. of farmers	Size of the farmers				Economic status	
			Marginal	Small	Big	Landless	BPL	APL
1.	Kandukuru	50	5	15	19	11	32	18
2.	Yerragunta	50	10	16	12	12	38	12
3.	Duddebanda	50	11	12	8	19	40	10
	Total	150	26 (17.3)	43 (28.7)	39 (26)	42 (28)	110 (73.3)	40 (26.7)

Note : Figures in parentheses indicates percentages.

Source: Field Survey.

The above table explains 43 respondents (28.7 per cent) are small farmers followed by 28 per cent (42 respondents) landless wage labourers, 39 respondents (26 per cent) are big farmers and 26 respondents (17.3 per cent) are marginal farmers. Marginal farmers are those farmers who are holding 1.2 acres wet 2.5 acres dry, small farmers holding wet 2.5 acres, dry 5.0 acres and big farmers are those

who hold farm holdings more than small farmers. It can be interpreted from the table, that small farmers (43 respondents) are more in the sample.

Relating to the economic status of the 150 beneficiaries is examined 110 respondents (73.3 per cent) fall below poverty line. Only 40 respondents (26.7 per cent) are above poverty line. The level of poverty in the sample villages can be understood by these figures though 39 of the respondents are big farmers. Their farms are not supporting the agriculture and yielding many returns.

Occupation Profile of the Respondents

Table 6.6 depicts the occupation profile of the respondents.

Table 6.6

OCCUPATION PROFILE OF THE RESPONDENTS

Sl. No.	Village	No. of respondents	Occupation			
			Agriculture	Agricultural labour	Wage labour	Artisan
1.	Kandukuru	50	22	16	11	1
2.	Yerragunta	50	15	18	17	--
3.	Duddebanda	50	12	18	20	--
	Total	150	49 (32.7)	52 (34.7)	48 (32)	1 (1.0)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

The above table describes of 150 beneficiaries selected for the study in three villages, 52 respondents (34.3 per cent) are agricultural labours, 49 respondents (32.7 per cent) depend on agriculture, 48 respondents (32 per cent) on wage labour and only one respondent (1 per cent) profess artisan. It is to be noted that the big farmers/respondents do not work as labours in watershed works. This affects the participation level in watershed programme. Duddebunda village has more number of wage labourers (20) than other two villages.

Status of Awareness about WSM Programme among the Respondents

Table 6.7 shows the status of awareness about WSM programme among the respondents.

Table 6.7

STATUS OF AWARENESS ABOUT WSM PROGRAMME AMONG THE RESPONDENTS

Sl. No.	Village	No. of respondents	Awareness of the programme	
			Know	Do not know
1.	Kandukuru	50	50	--
2.	Yerragunta	50	48	2
3.	Duddebanda	50	45	5
	Total	150	143 (95.3)	7 (4.7)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

When the level of awareness about the WSM programme in the selected sample is investigated, 143 (95.3 per cent) out of 150 respondents know atleast something about the programme. Only seven respondents (4.7 per cent) said that they do not know about the programme. Though they are beneficiaries of the programme, they are enjoying the benefits without knowing under which programme they are getting it.

Awareness of the programme is an important component in facilitating participation upon which success of the programme depends.

Opinion of the Respondents about the Implementation of the Programme

Table 6.8 depicts the opinion of the respondents about the implementation of the programme.

Table 6.8
OPINION OF THE RESPONDENTS ABOUT THE IMPLEMENTATION
OF THE PROGRAMME

Sl. No.	Village	No. of respondents	Opinion			
			Excellent	Good	Poor	Have no idea
1.	Kandukuru	50	NIL	21	29	NIL
2.	Yerragunta	50	NIL	33	15	2
3.	Duddebanda	50	NIL	32	13	5
	Total	150	NIL	86 (57.3)	57 (38)	7 (4.7)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

Regarding the opinion of the respondents about the implementation of the programme, 86 respondents (57.3 per cent) opined that the programme in general is good. 57 (38 per cent) out of 150 respondents felt that the implementation of the programme is poor, which is a significant number, that has to be taken seriously and seven respondents (4.7 per cent) said they have no idea of how the programme is being implemented. It is to be noted that none of the respondents said that the programme is excellent and hence the has a long way to go.

Opinion of the Respondents on the performance of the WSM programme in their Respective Villages

Table 6.9 depicts the opinion of the respondents on the performance of the WSM programme in their respective villages.

Table 6.9
OPINION OF THE RESPONDENTS ON THE PERFORMANCE OF
THE WSM PROGRAMME IN THEIR RESPECTIVE VILLAGES

Sl. No.	Village	No. of respondents	Opinion			
			Excellent	Good	Poor	Have no idea
1.	Kandukuru	50	NIL	27	23	NIL
2.	Yerragunta	50	NIL	22	20	8
3.	Duddebanda	50	NIL	18	22	10
	Total	150	NIL	67 (44.7)	65 (43.3)	18 (12)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

In the above table 67 respondents (44.7 per cent) opined that the performance of the WSM programme is good and it could realize the objectives targeted. 65 respondents (43.3 per cent) opined that the performance is poor and 18 respondents (12 per cent) said that they have no idea on the performance of the programme, whether it could realize the objectives or not. A note is to be made that the respondents who said performance is good (67) and respondents who said performance is poor (65) is almost equal. This can be attributed to political divide in the selected villages. It is also to be noted that none of the respondents replied that the performance of the progress is excellent which again reminds the goal ahead.

Opinion of the Respondents about Various Aspects of the Programme (Ecological, Economic and Social Aspects)

Opinion of the respondents about various aspects of the programme (ecological, economic and social Aspects) is given in Table 6.10.

In order to understand the performance of the WSM programme in a comprehensive manner, the researcher extracted the opinion of the respondents about various aspects of programme, ecological, social and economic.

Regarding the ecological aspect of the programme, 103 respondents (68.7 per cent) opined that the ground water table has increased post project and 47 respondents (31.3 per cent) felt that no noticeable increase is identified. 102 respondents (68 per cent) said that soil and water erosion has been checked successfully by watershed practices whereas 48 respondents (32 per cent) opined that erosion has not been checked. Finally 108 respondents (72 per cent) said there is increase in Bio mass in the selected villages and 42 respondents (28 per cent) responded negatively.

Table 6.10
OPINION OF THE RESPONDENTS ABOUT VARIOUS ASPECTS OF THE PROGRAMME (ECOLOGICAL, ECONOMIC AND SOCIAL ASPECTS)

Sl. No.	Item	Opinion of the respondents						Total		Percentage	
		Kandukuru		Yerragunta		Duddebanda		Yes	No	Yes	No
		Yes	No	Yes	No	Yes	No				
1.	Ecological Aspects										
	(a) Increase in groundwater table	30	20	35	15	36	12	103	47	68.7	31.3
	(b) Check in soil and water erosion	38	12	34	16	30	20	102	48	68	32
	(c) Increase in Bio mass	40	10	36	14	32	18	108	42	72	28
2.	Economic Aspects										
	(a) Increase in productivity	30	20	25	25	26	24	81	69	54	46
	(b) Increase in income levels	16	34	34	16	35	15	85	65	56.7	43.3
	(c) Increase in employment opportunity	16	34	38	12	35	15	89	61	59.3	40.7
3.	Social Aspects										
	(a) Social equity in terms of caste, class, gender	15	35	18	32	3	47	36	114	24	76
	(b) Women empowerment	10	40	12	38	9	41	31	119	20.7	79.3
	(c) Rise of dynamic rural leadership	5	45	11	39	6	44	22	128	14.7	85.3

Source: Field study

Relating to economic aspect of the programme, 81 respondents (54 per cent) opined that there is increase in productivity post project while 61 respondents (40.7 per cent) said no increase. 85 out of 150 respondents (56.7 per cent) replied that there is rise in income levels post project and 65 respondents (43.3 per cent) said no increase in income and finally as to increase in employment opportunities, 89 respondents (59.3 per cent) replied positively and 61 respondents (40.7 per cent) are negative.

Regarding social aspect of the programme, on achieving social equity in terms of class, caste, sex 114 respondents (76 per cent) are negative and only 36 respondents (24 per cent) are positive. On achieving women empowerment through the programme, 119 respondents (79.3 per cent) are in negative and only 31 respondents (20.7 per cent) are positive. And lastly on rise of dynamic rural leadership, 128 respondents (85.3 per cent) opined that it cannot be realized and only 22 respondents (14.7 per cent) expressed leadership can be realized.

It can be derived that the WSM programme is successful in achieving economic and ecological sustainability and is poor in achieving social sustainability for which NGOs co-operation is sorted.

Opinion of the Respondents on the Attitude and Availability of the Officials Concerned

Table 6.11 depicts the opinion of the respondents on the attitude and availability of the officials concerned.

Table 6.11

OPINION OF THE RESPONDENTS ON THE ATTITUDE AND AVAILABILITY OF THE OFFICIALS CONCERNED

Sl. No.	Village	No. of respondents	Cooperation		Availability	
			Yes	No	Yes	No
1.	Kandukuru	50	35	15	35	15
2.	Yerragunta	50	36	14	36	14
3.	Duddebanda	50	40	10	36	14
	Total	150	111 (74)	39 (26)	107 (71.3)	43 (28.7)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

The above said table elucidates the opinion of respondents on attitude examined, 111 respondents (74 per cent) opinion that the officials concerned are very cooperative towards implementation of the WSM programme are very cooperative, friendly and supportive and 39 respondents (26 per cent) are non-cooperative.

On how much available the officials are 107 respondents (71.3 per cent) opined that the officials are available where as 43 respondents (28.7 per cent) replied that the officials are unavailable. For the programme to become success the officials are to be cooperative and available. Hence officials are to make themselves available and support the beneficiaries.

Opinion of the Beneficiaries on Financial Position of the Programme and Contributions of Local Philanthropists to the Programme

Table 6.12 depicts the opinion of the beneficiaries on financial position of the programme and contributions of local philanthropists to the programme.

Table 6.12

OPINION OF THE BENEFICIARIES ON FINANCIAL POSITION OF THE PROGRAMME AND CONTRIBUTIONS OF LOCAL PHILANTHROPISTS TO THE PROGRAMME

Sl. No.	Village	No. of respondents	Financial position			Contributions of philanthropists	
			Good	Satisfactory	Poor	Needed	Not needed
1.	Kandukuru	50	5	20	25	50	NIL
2.	Yerragunta	50	2	12	36	50	NIL
3.	Duddebanda	50	1	10	39	50	NIL
	Total	150	8 (5.3)	42 (28)	100 (66.7)	150 (100)	NIL

Note: Figures in parentheses indicates percentage.
Source: Field Study.

On financial position of the programme, 100 respondents (66.7 per cent) opined that the finances given to the implementation of programme is very bad, 42 respondents (28 per cent) replied the position is satisfactory and only eight respondents opined that the financial position of the programme is good.

On opinion of the respondents on financial contributions to local philanthropists to the programme, the cent per cent respondents opined that the aid is needed and felt that it is the obligation of the rich people to pay back to the society, by giving aid to the programme which changes the fate of the rainfed areas. Government, NGO's and philanthropists are to save rainfed areas and make them livable.

Beneficiaries Knowledge on Soil and Water Conservation Works

Table 6.13 shows the farmers knowledge on soil and water conservation works.

Beneficiaries knowledge on various soil and water conservation works is studied. The soil conservation works are contour cultivation, contour trenching, field bunding, mulching, tillage, rock fill dams, sunken ponds. Regarding the knowledge of contour cultivation among the respondents 146 respondents (97.3 per cent) have knowledge, on contour trenching 146 respondents (97.3 per cent), on field bunding all 150 respondents (cent per cent), on mulching 23 respondents (15.3 per cent), on tillage 140 respondents (93.3 per cent), on rock fill dams 150 out of 150 respondents (cent per cent). Relating to the beneficiaries knowledge on water conservation works, cent per cent beneficiaries had knowledge of check dams, gabion check dams, percolation tanks, farm ponds, rock fill dams, diversion of rain water towards dried up wells. It is to be noted from the study that some of the soil and water conservation activities like mulching (15.3 per cent), sunken ponds (22 per cent), sub-surface dams (zero per cent) are not very popular with the farmers. It is to be remembered that every activity of the watershed has its own relevance and hence the farmers are to be aware and educated of the advantages of the above activities and are to be encouraged to adopt them.

Table 6.13

BENEFICIARIES KNOWLEDGE ON SOIL AND WATER CONSERVATION WORKS

Sl. No.	Items	Knowledge of respondents						Total		Percentage	
		Kandukuru		Yerragunta		Duddebanda		Know	Do not know	Know	Do not know
		Know	Do not know	Know	Do not know	Know	Do not know				
(a)	Soil conservation works										
	1. Contour, cultivation	48	2	49	1	49	1	146	4	(97.3)	(2.7)
	2. Contour trenching	48	2	49	1	49	1	146	4	(97.3)	(2.7)
	3. Field bunding	50	Nil	50	Nil	50	Nil	150	Nil	(100)	Nil
	4. Mulching	120	38	5	45	6	44	23	122	(15.3)	(84.7)
	5. Tillage	50	Nil	45	5	45	5	140	10	(93.3)	(6.7)
	6. Rock fill dams	50	Nil	50	Nil	50	Nil	150	Nil	(100)	Nil
	7. Sunken ponds	20	30	8	42	5	45	33	117	22	78
(b)	Water conservation works										
	1. Check dams	50	Nil	50	Nil	50	Nil	150	Nil	(100)	Nil
	2. Gabbion check dams	50	Nil	50	Nil	50	Nil	150	Nil	(100)	Nil
	3. Percolation tanks	50	Nil	50	Nil	50	Nil	150	Nil	(100)	Nil
	4. Farm ponds	50	Nil	50	Nil	50	Nil	150	Nil	(100)	Nil
	5. Sub-surface dams	Nil	50	Nil	50	Nil	50	Nil	150	Nil	(100)
	6. Rockfill dams	50	Nil	50	Nil	50	Nil	150	Nil	(100)	Nil
	7. Diversion of rainwater towards dried up wells	50	Nil	50	Nil	50	Nil	150	Nil	(100)	Nil

Note: Figures in parentheses indicates percentage.

Source: Field Study.

Opinion of the Respondents for the Effective Implementation of the Programme

Table 6.14 shows the opinion of the respondents for the effective implementation of the programme.

Finally, opinions of the respondents for effective implementation of the programme is extracted by the researcher. Of the 150 respondents, 135 (90 per cent) strongly agree and 15 respondents (10 per cent) agree that awaring, educating and motivating the villagers to adopt soil and water conservation methods helps in effective implementation of the programme.

People's participation is an undisputable ingredient for the success of the WSM programme. People's participation is at three stages- planning stage, implementation stage, and evaluation stage. 142 respondents (95 per cent) strongly agree and eight respondents (5 per cent) agree for people's participation at planning stage. 102 respondents (68 per cent) strongly agree and 30 respondents (20 per cent) agree for participation at implementation stage and lastly 105 respondents (70 per cent) strongly agree and 34 respondents (22.7 per cent) agree for the participation at evaluation stage.

61 respondents (40.7 per cent) strongly agree and 24 respondents (16 per cent) agree that WSM programme can be made more effective with women participation. 102 respondents (68 per cent) strongly agree and 26 respondents agree for SC, ST, BC and other weaker sections participation for the success of the programme. All 150 respondents (cent per cent) opined that more and judicious use of funds is the mandatory for effective implementation of the programme.

88 respondents (58.7 per cent) strongly agree and 42 respondents (28 per cent) agree that social inequities- class, caste, religion and gender should be addressed for effective implementation of the programme. And finally cent per cent respondents opined that social audit helps in improving the implementation of the programme.

Table 6.14

OPINION OF THE RESPONDENTS FOR THE EFFECTIVE IMPLEMENTATION OF THE PROGRAMME

Sl. No.	Item	Opinion of the respondents									Total			Percentage		
		Kandukuru			Yerragunta			Duddebanda			Strongly agree	Agree	Not agree	Strongly agree	Agree	Not agree
		Strongly agree	Agree	Not agree	Strongly agree	Agree	Not agree	Strongly agree	Agree	Not agree						
1.	Awaring, Educating & motivating to adopt S & W conservation practices	42	8	--	45	5	--	48	2	--	135	15	--	90	10	--
2.	Peoples participation															
	1. Planning Stage	50	--	--	48	2	--	44	6	--	142	8	--	95	5	--
	2. Implement ation stage	32	10	8	25	15	10	45	5	--	102	30	18	68	20	12
	3. Evaluation stage	38	10	2	30	14	6	37	10	3	105	34	11	70	229	7.3
	4. Women participation	22	8	20	19	14	17	20	2	28	61	24	65	40.7	16	43.3
	5. Weaker sections	37	10	3	35	6	9	30	10	10	102	26	22	68	17.3	14.7
3.	More finance and judicious use of finance	50	--	--	50	--	--	50	--	--	150	--	--	100	--	--
4.	Social inequities	30	15	5	28	16	6	30	11	9	88	42	20	58.7	28	13.3
5.	Social audit	50	--	--	50	--	--	50	--	--	150	--	--	100	--	--

Source: Field study.

It is to be noted that participation in planning is regarded important whereas participation in implementation and evaluation stage is regarded as less important by the respondents. Villagers are to be encouraged to participate in all stages planning, implementation and evaluation constructively.

SECTION-III

Perception of the Officials

In Anantapuram district, regarding watershed programme, officials play an important role in taking the WSM programme to the beneficiaries. They are crucial for realizing the objectives of the programme and make it a success. Hence the researcher also interviewed 50 officials from various departments such as Department of Rural Development, Agriculture, Forestry, Civil Engineering, Zilla Parishad, District Rural Development Agency, District water Management Agency, Mandal Parishad, Gram Panchayat etc. Before going into the details of the interview schedule, the socio-economic profile of the officials is presented.

Status of Social Community, Sex and Age of the Respondents

Table 6.15 shows the status of social community, sex and age of the respondents.

In table 6.15 the community, sex and age status of the sample is examined. Of the total 50 respondents, 20 respondents (40 per cent) belong to BC community followed by 17 respondents (34 per cent) to other communities, eight respondents (16 per cent) to SC community, and only five respondents belong to ST community. Thus it is interpreted from the data that majority of the sample is from BC community and the least from ST community.

Regarding to the gender, 38 respondents (76 per cent) are males and 12 respondents (24 per cent) are females. The majority of the officials, 24 (48 per cent) are in the age group of 40-58 years followed by 18 officials (36 per cent) in age group of 31-40 years and only 8 officials (16 per cent) are in the age group of 18-30 years. Thus the sample is a mix of experience and young blood.

Table 6.15
STATUS OF SOCIAL COMMUNITY, SEX AND AGE OF THE RESPONDENTS

Total respondents	Social community				Sex		Age		
	SC	ST	BC	Others	Male	Female	18-30 years	31-40 years	40-58 years
50	8 (16)	5 (10)	20 (40)	17 (34)	38 (76)	12 (24)	8 (16)	18 (36)	24 (48)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

Profile of Occupation of the Officials

Table 6.16 depicts the profile of occupation of the officials.

The occupation of the sample is examined majority of the sample 10 (20 per cent) are agricultural officers and 10 (20 per cent) are technical officers, followed by six (16 per cent) forest officers, five (10 per cent) administrative officers, three (6 per cent) Assistant Project Directors, three (6 per cent) Village Secretaries, two (4 per cent) Additional Project Directors, five (10 per cent) office staff, four (8 per cent) civil engineers, one (2 per cent) special commissioner and one (2 per cent) Project Director. As mentioned earlier, officials play an important role in WSM programme implementation and through their position, designation and occupation they can influence the WSM programme.

Profile of Education, Service and Income of the Officials

Table 6.17 shows the profile of education, service and income of the officials.

Table 6.17
PROFILE OF EDUCATION, SERVICE AND INCOME OF THE OFFICIALS

No. of respondents	Education			Service in years			Income		
	Upto 10 th Class	Inter	Degree and above	Below 5 yrs	6-10 years	Above 10 yrs	Upto 1 lakh	Above 1 lakh to 5 lakh	Above 5 lakh
50	1 (2)	5 (10)	44 (88)	11 (22)	15 (30)	24 (48)	15 (30)	8 (16)	27 (54)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

The profile of education and experience of the sample is examined by the researcher. The study indicates that majority of the sample 44 (88 per cent) are degree holders, five (10 per cent) did Inter and only one (2 per cent) respondent has studied till SSC.

Pertaining to the experience of the officials, majority 24 respondents (48 per cent) had experience more than 10 years, 15 (30 per cent) 6-10 years experience remaining 11 officials (22 per cent) have service below five years.

Table 6.16
PROFILE OF OCCUPATION OF THE OFFICIALS

No. of respondents	Occupation										
	Special Commissioner	Project Director	Additional Project Director	Assistant Project Director	Engineer	Agriculture Officer	Forest Officer	Administrative Officer	Technical Officer	Village Secretary	Office staff
50	1 (2)	1 (2)	2 (4)	3 (6)	4 (8)	10 (20)	6 (16)	5 (10)	10 (20)	3 (6)	5 (10)

Note: Figures in parentheses indicates percentage.
Source: Field Study.

The level of education and service helps in understanding the objectives of the WSM programme better which motivates to work better. As majority sample is degree holders and above 10 years experience much can be expected from them.

27 respondents (54 per cent) are with annual income above 5 lakhs, 8 (16 per cent) are between 1 lakh to 5 lakh and 15 (30 per cent) have annual income upto 1 lakh.

As majority of the respondents 27 are above 5 lakh income, can be expected more satisfied and can work more with heart and soul for improving the WSM programme.

Profile of the Experience of the Officials in the Programme and Status of Satisfaction of the Performance of the Programme

Table 6.18 shows the profile of the experience of the officials in the programme and status of satisfaction of the performance of the programme.

Table 6.18

PROFILE OF THE EXPERIENCE OF THE OFFICIALS IN THE PROGRAMME AND STATUS OF SATISFACTION OF THE PERFORMANCE OF THE PROGRAMME

No. of respondents	Experience in the programme			Satisfaction of the performance of programme	
	Below 5 years	6-10 years	Above 10 years	Yes	No
50	27 (54)	8 (16)	15 (30)	46 (92)	4 (8)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

Experience of the officials in implementing WSM programme is examined. Majority of the sample 27 (54 per cent) have below five years experience, 15 officials (30 per cent) have above 10 years experience and eight (16 per cent) officials have experience between 6-10 years. Officials with more experience can implement the programme effectively. As majority of the sample 27 are below five years they need to know more about the programme. To whether the officials are satisfied with the performance of the WSM programme, 46

officials (92 per cent) are positive and only four (8 per cent) responded that they are not satisfied.

Status of Staff Position and Service Improvement

Table 6.19 depicts the status of staff position and service improvement.

Table 6.19

STATUS OF STAFF POSITION AND SERVICE IMPROVEMENT

No. of respondents	Staff position		Service improvement	
	Sufficient	Not sufficient	Yes	No
50	--	50 (100)	--	50 (100)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

It is wonder to say that cent per cent respondents affirmatively responded that the staff is not sufficient for implementing the WSM programme in an efficient manner. Also all the 50 respondents are not satisfied with their career graph as there is no improvement in the service. Thus, one of the reason for most of the officials to come on deputation for a short period and go away once the deputation is over in search of better prospects. Insufficiency of the staff affects the performance of the programme and hence sufficient staff is to be recruited.

Status of Supervising Powers and Problems faced by the Officials in Implementing the Programme

Table 6.20 depicts the status of supervising powers and problems faced by the officials in implementing the programme.

Table 6.20

STATUS OF SUPERVISING POWERS AND PROBLEMS FACED BY THE OFFICIALS IN IMPLEMENTING THE PROGRAMME

Sl. No.	Supervisory powers			Problems faced		
	Sufficient	Not sufficient	Total	Yes	No	Total
1.	27 (60)	18 (40)	45 (100)	28 (56)	22 (44)	50 (100)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

It is to be noted that the number of respondents selected for studying the status of supervisory powers is 45 as five are office staff who have no supervisory powers. It is inferred from the table that out of 45 respondents 27 (60 per cent) expressed their opinion that they have sufficient powers to supervise the watershed programme under their jurisdiction whereas 18 (40 per cent) replied that the supervisory powers are not sufficient.

As to the problems faced by the officials in the course of implementation of the WSM programme, 28 (56 per cent) responded that they faced various problems while 22 (44 per cent) responded that they were not faced with much problems.

Opinion of the Officials on Progress Concerning the Local Beneficiaries

Table 6.21 depicts the opinion of the officials on progress concerning the local beneficiaries.

Table 6.21
OPINION OF THE OFFICIALS ON THE PROGRESS CONCERNING
THE LOCAL BENEFICIARIES

Sl.No.	Item	Status of progress	
		Yes	No
1.	Availability of water for irrigation due to increase in ground water level	46 (92)	4 (8)
2.	Availability of drinking water	50 (100)	--
3.	Increase in income levels due to productivity increase	48 (96)	2 (4)
4.	Increase of fodder availability	50 (100)	--
5.	Increase of employment opportunities	48 (96)	2 (4)
6.	Increase of number of wage days	50 (100)	--
7.	Formation of Self Help Groups and User groups	50 (100)	--

Note: Figures in parentheses indicates percentage.

Source: Field Study.

In order to assess the performance of the programme, it is to studied whether the targeted group is benefited are not. Hence the researcher made an attempt whether any progress/development is seen in local beneficiaries with WSM programme. Implementation of WSM programme results in increasing groundwater level which makes increased water available for drinking, irrigation, increased fodder availability. Availability of more water for irrigation brings more land under cultivation resulting in increase in productivity and income levels. Employment opportunities and number of wage days increase with WSM works taken up in the villages. Formation of more SHGs and UGs help to build the capacity of the villagers.

To the question of increased availability of water for irrigation, 46 (92 per cent) have good opinion, 50 out of 50 respondents responded that availability of water for drinking increased in the watershed villages.

As to the increase in income levels due to productivity increase 48 (96 per cent) respondents responded that the villagers got benefited. Cent per cent (50) officials replied that the beneficiaries got benefited due to increase in fodder availability.

48 respondents (96 per cent) have the opinion that villagers got benefited as the employment opportunities increased with WSM works taken up in the villages. To formation of SHGs and User Groups, cent per cent (52) officials opined the villagers got benefited with formation of more SHGs and User Groups which builds the capacity and leadership qualities among the villagers.

Overall the officials are of the opinion that villagers got maximum benefits from the WSM programme and thereby progressed, economically, socially and ecologically.

Relation of the Officials with Non-Officials and Officials

Table 6.22 shows the relation of the officials with non-officials and officials.

Table 6.22
RELATION OF THE OFFICIALS WITH NON-OFFICIALS AND
OFFICIALS

No. of respondents	Relation with non-officials		Relation with officials	
	Co-operative	Non-co-operative	Co-operative	Non-Co-operative
50	22 (44)	28 (56)	46 (92)	4 (8)

Note: Figures in parentheses indicates percentage.

Source: Field Study.

The cordial relations between the officials and non-officials (political representatives), officials are key for effective success of the programme. Almost all officials (56 per cent) opined that they are not getting full cooperation from the non-officials, while 22 (44 per cent) respondents are of the opinion that non-officials are cooperative.

As to the status of relation with officials, almost all respondents (92 per cent) opined good relations. The respondents felt that the officials are very supportive.

Discordial relations between officials and non-officials affect the programme implementation and hence differences are to be sorted out between various functionaries in view of larger interests.

SECTION-IV

Perceptions of the Non-Officials

Under Hariyali programme, Gram Panchayats play crucial role in the implementation of the watershed programme under the supervision and guidance of PIAs. Gram Panchayats with the help of PIAs prepare the development plans for the watershed through Participatory Rural Appraisal (PRA) methods, undertake community organization and training for the village community, supervise watershed projects, encourage adoption of new technologies and build indigenous technology and finally to monitor and review the overall project implementation.

The Gram Panchayats, under Hariyali programme execute the works under the guidance and control of Gram Sabha, which is convened twice a year by the Village Secretary with Sarpanch as

Chairman of the meeting. Gram Panchayats are responsible for coordination and liaison with Watershed Development Team (WDT) and ZP/DRDA (nodal agency at district level) to ensure smooth implementation of the project. Gram Panchayats makes the payments (Separate account for watershed projects) for watershed works done. The separate account is operated jointly by Gram Panchayat, Secretary and Sarpanch. Gram Panchayats constitute User Groups, Self Help Groups and Vanrakshaks.

In view of the importance given to Panchayat Raj Institutions- Zilla Parishad, Mandal Parishad and Gram Panchayat, the researcher made an attempt to understand the perceptions of the non-officials on the performance of watershed programme.

The researcher for the above purpose has conducted informal interviews with the Sarpanches of the selected village 3, ward members 31 (Kandukuru-14; Yerragunta-8 and Duddebanda-9), two Mandal Parishad Presidents, three MPTC members, one Zilla Parishad Chairman and three ZPTC totaling to 43.

Each and every non-official opined that, watershed programme is an excellent programme to address the problems of the rainfed areas in general and selected villages in particular. According to them, watershed programme increased ground water table, conserves water and soil, increase availability of water for drinking purpose both by humans and animals, availability of water for irrigation, increase of Biomass and fodder for animals, increase in employment opportunities and increase in number of wage days, increase in bovine population and milk yield.

The non-officials are of the opinion that watershed programme promotes diversification of crops, use of bio fertilizers and bio pesticides, environmental friendly technologies like- gobar gas, solar energy etc. 78 per cent of the non-officials opined that the formation of SHGs and User Groups empowers women and other weaker sections like SCs, STs, BCs and landless wage labourers. They are of

the opinion that the programme promotes leadership qualities in the villages.

98 per cent of the non-officials are of the opinion that lack of enough funds and non-release of funds in time is a major constraint for effective performance of the programme. The officials opined that lack of awareness of the benefits of the programme in the villagers and various social barriers like caste, class, gender, insufficient staff and untrained, unskilled officials are all bottlenecks to the programme.

The non-officials suggested to conduct awareness camps to educate, aware and motivate the villagers to adopt soil and conservation methods, increased and timely release of funds, sufficient trained and skilled officials to be recruited, regular evaluation to be conducted and proper post-project maintenance of assets created for realizing the fruits of the prestigious watershed programme.

REFERENCES

1. District Water Management Agency, Anantapuram.
2. Ibid.
3. Ibid.