

ECONOMIC BENEFITS FROM SOIL CONSERVATION OF KORAPUT TRIBALS IN ODISHA

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Abstract: There is a coherent and internal relationship between soil and all living organism on the earth. Survival rests on the top soil which is known as life supporting due to the productiveness of this layer. Koraput is the southern most district of Odisha. The district is located in south Eastern most Ghat mountain range. Some parts of the area occur at 150-1000 meters above the Mean Sea Level (MSL). The region is characterized by scatted, isolated, sharp and some series hills with forest cover. Gullies and ravines are steadily encroaching into productive table land of many major command areas. Excessive deforestation, overgrazing, faulty agricultural practice and the industrialization is the causes of erosion. Factors like climate (temperature, rainfall and wind), vegetation, topography (degree and length of slope) and soil type (infiltration, permeability, soil depth, particle size) ultimately refers to its erosivity.

The paper includes the analytical framework of soil economics with three objectives

- i. To Know Soil conservation Programmes and its implementation in the utterly backward region like Koraput of Odisha.
- ii. To know soil conservation practices in different plan periods in India and allocation of funds to this region.
- iii. To know the nature and extent of gains of tribal people from various soil conservation programmes and projects implemented in the area.

Soil conservation activities are undertaken various agro-economical and socio-economic measures by various agencies. The central government and state governments have launched many policies, Programmes to protect the soil erosion to increase the productivity of tribal people. The study however around this proposition.

Keywords: Soil Conservation, Deforestation, River Valley Catchment Area, Soil Erosion, Watershed, Common Property Resources.

1. Introduction

Soil is a very important input for all production function. Its supply is fixed and non-substitute. One inch of productive soil is formed in 400 years. Its function is including food production, carbon storage, climate regulation, water storage and above all support for biodiversity and living kingdom.

It is a natural capital with the potential to produce a flow of benefits and utilities in the futures. Conservation and production proceed side by side. On the contrary, degradation of land and erosion does not confined to productive field only. It may occur in any geographical area. Farmers land is protected by any means, but the problem involves in non- agricultural Common Property Resources (CPR) very difficult to manage. So, huge property is endangered. Problem can be viewed in two aspects i.e. production point of view and environment point of view. From government side soil conservation activities are undertaken various agro-economical and socio-economic circumstances. The central government has launched many policies, Programmes to protect the soil erosion and to increase the productivity in the through rehabilitation. Various approaches like watershed management, promoting farm crops (cashew, mango, sisal, etc.) have been an effective tool for rural transformation and natural resource management.

During the 1970s the agricultural output expansion caused a substantial increase in soil erosion. The resulting concern stimulated two kinds, one showing the economic impact of reduced erosion and another about how current erosion reduces future agricultural productivity. Both have the intensity to curtail soil loss. The soil conservation department has provided technical and financial assistance to curtail erosion for almost fifty years in India but there is a little evidence about that erosion has been curtailed. This paper analyses about some idea and economic benefits of soil conservation to the people in a particular region.

2. Objectives of the Study

The present study intends to pursue the following objectives:

- i. To Know Soil conservation Programmes and its implementation in the utterly backward region like Koraput of Odisha.
- ii. To know soil conservation practices in different plan periods in India and the funds allocated to this region for the purpose.
- iii. To know the nature and extent of gains of tribal people from various soil conservation programmes implemented in the area.

The paper is analytical and descriptive. Both primary and secondary data are interpreted to deduce the inferences.

3. Soil conservation Programmes and its implementation in the region

The core activities of the soil conservation programme in the region cover watershed treatment, plantation of cashew, coffee, and sisal, construction of division weir (Check dam far five to thirty acres of cultivable land) and water harvesting structure. Besides

these being taken up under the regular soil conservation programme, the department participates in R.L.E.G.P.(Rural Labour employment Generation Programme – Plantation), E.R.R.P. (Economic Rehabilitation of Rural Poor), I.G.S.(Income Generation Scheme – Plantation), Sisal Plantation, E.A.S.(Employment Assurance Scheme – Watershed), A.C.A. Additional Central Assistance – Watershed), I.W.D.P.(Integrated Waste Land Development Programme – Watershed), N.W.D.P.R.A. (National Watershed Development Programme in Rainfed Areas), RVP (River Valley Project – Watershed), R.L.T.A.P.(Revised Long Term Action Plan – Plantation), J.R.Y.(Jawahar Rojgar Yojana), I.T.D.A.(Integrated Tribal Development Agency - Plantation), M.G.N.R.E.G.A.(Mahatma Gandhi National Rural Generating Activities – Plantation), which are the national and regional programmes for income and employment generation for the rural poor. The Department takes up watershed management and plantation activities under such non-specific soil conservation programmes. Both the district are being predominant tribal district with high natural resources. More than 170 nos, of micro water projects functioning under different schemes i.e. IWDP, SCA (RLTAP), IWMP, BWDPR and RVP in the district. The total outlay of funds received so far are Rs. 3679.45 lakhs and expenditure made so far is Rs. 2942.11 lakhs by 2016. Before this the watershed programme was mainly benefiting the land owning farmers i.e. activities like soil and water conservation, water resource development and efficient water application, cropping practices were significant in ensuring sustainable development in rainfed areas. But over a considerable time of implementation it was observed that these activities are necessary but not sufficient for the poor people especially the landless. In order to bring about fact that agriculture and allied activities are important livelihood options for a significant proportion of rural poor. The constraints on the natural resource are some of the major factors largely responsible for area's poverty in Koraput district. Some of the agro-ecological constraints plaguing the entire agriculture scenario in these areas are highly erratic and seasonal rainfall, degraded environment, primitive agricultural practices, minimal irrigation facilities and predominance of uplands. For this a comprehensive development strategy integrating various components of natural resource management and livelihood activities that would be able to address the needs of the farmers based on the agro-ecological and socio-economic conditions is what is adopted now in watershed. Efforts are made whatever is the best for the people for whom the project is intended. To achieve the goal and objectives of the project sincere effort has been done and a lot more will be carried out in the project period. Under the JEEBEKA, Watershed Plus and Livelihood support system through its additional livelihood component would aim at enhancing the livelihood needs of the poor residing in the project villages. The livelihood component has been utilised through participatory planning implementation and monitoring process and would cover a range of areas in addressing rural poverty. Under income generation, 1285 numbers of grant beneficiary has been supported @ Rs. 7000 per beneficiary and Under Revolving fund 319 numbers of SHGs/ CIGs has been supported upto Rs. 20000 per group for undertaking various enterprises. Further 164 numbers 141 numbers of Micro Watershed Projects in Koraput and Malkangiri district and have been functioning under various schemes like, IWDP, SCA, (RLTAP), IWMP, NWDPR, and RVP in the district.

4. Funding in 11th Five Year Plan to Koraput District

During 1920 severe soil erosion in hilly regions and frequent drought in rainfed region drew attention of the Central Government. So, Government carried out pioneering work in controlling and stabilizing torrents which was a serious problem in disrupting communication system. The wide spread problem of soil erosion and land degradation and its impact in total economic life had received attention of the government. Study of Soil and Water Conservation Programmes have given more priority in the planning process. Koraput is not a deviation to it and has emphasized in planning periods.

In the 11th five year plan a total amount of Rs.148,000 was sanctioned to a single block i.e. only to Koraput. Expenditure has made as per the heads given in Table-1. It is seen that the total expenditure in watershed is Rs.125060.00 and administrative head is Rs 22940.00.

Table-1 : Expenditure in different heads in soil conservation

SI. No.	Watershed Heads			Administrative Heads		
	Exp. Heads	to % allotment	Amount Rs.	Exp. Heads	to % allotment	Amount Rs
1	2	3	4	5	6	7
1	Administrative heads	4	5920	Administrative heads	6	8880
2	CE	3	4440	PA Level CO	10	6660
3	NRM	50	78000	Training	5	7400
4	Farm Production system	20	29600	-	-	-
5	Livelihood support	7.5	11100	-	-	-
			125060			22940

Source: Soil conservation Office, Koraput

There is an equal distribution of Rs.148000 in each block in the district and an aggregate of RS. 13,32,060 has been sanctioned for 9 blocks in 11th five year plan (Table-2).

Table-2 :Sub-divisional allotment amount in different blocks in the district

Sl. No.	Name of the sub division	Amounts (Rs.)
1	2	3
1	Koraput	148000
2	Potangi	148000
3	Semiliguda	148000
4	Nandapur	148000
5	Lamtaput	148000
6	Dasmantpur	148000
7	Laxmipur	148000
8	Bandhugaon	148000
9	Narayanpatna	148000
	Total	13,32,060

Source: Soil conservation Office, Koraput

5. Various programmes implemented in Koraput district

For the development of the tribal and non tribals, government implements various programmes in the area. Some of them are analysed.

5.1.Rural Work Division (RWD)

The District Rural work division is working for the construction and maintenance of Rural roads and buildings. The Rural Works Division has taken primarily all missing links such as construction of CD works and Minor and Major bridges, which has facilitated the rural inhabitants for their better living and understanding with the urban and rural settlers in addition to their development and some identified road works. It is seen that the living standard of the rural people who have been subsequently provided with all weather pucca communication has drastically improved mainly on medical, education and marketing facilities.

5.2.Prime Minister Grama Swarojagar Yojana (PMGSY)

The PMGSY scheme started since 2000-01. The main target of this scheme is to provide all weather connectivity to the habitations having population more than 1000. In respect of the hilly as well as the tribal area the objective was to be connecting habitation with population of 250 and above. In the district of Malkangiri and Koraput 150 and 177 habitations were connected through this scheme

5.3.National Agriculture Bank for Rural Development (NABARD)

During 2010-11 and 2011-12 five number of bridge works have been taken up out of which two number are completed in Koraput. Various constructions are also completed in Koraput district. NABARD helps the watershed Projects by Providing 18 lakhs to complete these projects.

5.4.Orissa Tribal Empowerment and Livelihoods Programme (OTELP)

The OTELP Programme focuses on empowerment of tribals and enables them to enhance their livelihood. At present there are more than 70 numbers of Micro watershed projects in Koraput district spread over 7 blocks like Narayanpatna,Laxmipur, Bandhugaon, Dasmantpur, Nandapur, Similiguda,and Pottangi. In Koraput district 70 MWS with 35809.86 he. of land are threatable area. Out of this 1567 he. land is bunded and 1522 he. is covered staggered trench to percolate water into ground and control runoff velocity. 138 of Farm pond, 160 nos, of diversion weir or check dams, 197 of WHS are created and 795 he. of land rabi and 3059 nos. of gully control structure constructed in 580 drainage line which saved 1012 he. from erosion. (IEA, COATS,2011)

6. Special Programmes of Soil Conservation in Koraput

Soil conservation division is located at Koraput and soil conservation sub divisions stationed at Koraput, Nandapur and Machhakund (I & II) for implementation of various plans and programmes. Besides one Coffee Development Division by one sub division located at Koraput. Projects under the NWDPR and other non departmental works mainly cashew and coffee plantations under DRDA and ITDA.

6.1. National Watershed Development Programme in Rainfed Areas (NWDPR)

The NWDPR covers in 12 blocks with particular watershed projects in Koraput district. In Lamtaput Sombal Nalla watershed contains total area of 998 he.with project outlay of Rs. 34.40. A total of 11498.78 he with Rs. 346.19 outlay is invested (Table-3).

Table-3: NWDPR, Koraput (Rupees in Lakhs and area in he.)

Si No.	Name of the block	Name of The watershed	Total Geographical area	Project out lay
1	2	3	4	5
1	Boipariguda Nalla	Seruguda Nalla	787.11	25.44
2	Dasmantpur	Parajapuki Nalla	839.89	35.18
3	Laxmipur	Katalamari Nalla	1027.91	25.32
4	Narayanpatna	Gumandi Nalla	618.08	16.98
5	Bandhugaon	Almonda Alla	612.00	15.10
6	Jeypore	Kandaput Nalla	957.80	27.31
7	Lamtaput	Sombali Nalla	998.00	34.30
8	Boipariguda	Mathapada Nalla	1028.60	34.14
9	Kundra	Asana Nalla	998.49	30.61
10	Boriguma	Rengaliguda	1072.30	34.13
11	Koraput	Karadigarh Nalla	695235	
12	Kotpad	Ambagaon Nalla	1500	33.39
Total			11489.78	346.19

Source: Soil conservation office in IX & X Plan

12 Nos of watersheds under the scheme were started in IX Plan and are also continuing in Xth Plan in order to make 100% saturated. A sum of Rs. 75,762 lakhs as against the project outlay of Rs. 346.19 lakhs has been spent (Table-4). The targeted area is yet to be treated due to delay of funds. Formation of SHG and UG and creation of WDF have progressed.

Table-4: NWDPR, Koraput (Rupees in Lakhs)

Si No.	Name of the block	Name of the watershed	Allotment received	Project Expenditure	% of Expenditure
1	2	3	4	5	6
1	Similiguda	Seruguda Nalla	614735	614735	100
2	Dasmantpur	Parajapuki Nalla	695235	695235	100
3	Laxmipur	Katalamari Nalla	695235	695235	100
4	Narayanpatna	Gumandi Nalla	554235	554235	100
5	Bandhugaon	Almonda Alla	504235	504235	100
6	Jeypore	Kandaput Nalla	615235	615235	100
7	Lamtaput	Sombali Nalla	695235	695235	100
8	Boipariguda	Mathapada Nalla	695235	695235	100
9	Kundra	Asana Nalla	694985	694985	100
10	Boriguma	Rengaliguda	632235	632235	100
11	Koraput	Karadigarh Nalla	695235	695235	100
12	Kotpad	Ambagaon Nalla	614735	614735	100
Total			7576200	7576200	100

Source: Soil conservation office in IX & X Plan

The Table-5 below shows that in the NWDPR the total treatable area of the total blocks are 7693.18 he. where as the treated area is 1629.9 he. and the % of the treated area is 21.12 in he. in IX to X plan.

Table-5: NWDPR, Koraput (Area in he.)

Si No.	Name of the block	Name of The watershed	Total Treatable area	Treated area	% Treated area
1	2	3	4	5	6
1	Similiguda	Seruguda Nalla	565.38	148.7	19.51
2	Dasmantpur	Parajapuki Nalla	526.65	120.73	19.15
3	Laxmipur	Katalamar i Nalla	781.83	149.7	19.15
4	Narayanpatna	Gumandi Nalla	377.38	118.36	31.36
5	Bandhugaon	Almonda Alla	355.62	107.25	31.96
6	Jeypore	Kandaput Nalla	606.95	131.92	21.73
7	Lamtaput	Sombali Nalla	762.12	148.7	19.51
8	Boipariguda	Mathapada Nalla	758.76	149.7	19.73
9	Kundra	Asana Nalla	680.25	149.6	21.99
10	Boriguma	Rengaliguda	758.42	135.7	17.89
11	Koraput	Karadigarh Nalla	751.84	149.7	19.65
12	Kotpad	Ambagaon Nalla	741.98	131.81	17.76
Total			7693.18	1624.98	21.12

Source: Soil conservation office in IX & X Plan

The Table-6 shows that in Narayanpatna block, the number of SHGs is 10 and their savings amount is Rs.0.7460 lakhs. But in Mathapada Nalla the number of SHGs are 3 but their savings is Rs. 0.98700 which is highest among all the SHGs groups.

Table-6: NWDPR, SHG, Koraput (Rupees in Lakhs)

Si No.	Name of the block	Name of the watershed	No. of SHG	Savings By SHG
1	2	3	5	6
1	Similiguda	Seruguda Nalla	8	0.44700
2	Dasmantpur	Parajapuki Nalla	5	0.59200
3	Laxmipur	Katalamari Nalla	5	0.33500
4	Narayanpatna	Gumandi Nalla	10	0.7460
5	Bandhugaon	Almonda Alla	7	0.43200
6	Jeypore	Kandaput Nalla	4	0.38200
7	Lamtaput	Sombali Nalla	8	0.34800
8	Boipariguda	Mathapada Nalla	3	0.98700
9	Kundra	Asana Nalla	5	0.34600
10	Boriguma	Rengaligud A	3	0.14800
11	Koraput	Karadigarh Nalla	12	0.77800

12	Kotpad	Ambagaon Nalla	4	0.26600
Total			74	5.85700

Source: Soil conservation office in IX & X Plan

The Table-7 shows about the number of UGs, their member enrolled to it and the deposits of WDF in lakhs. The number of UGs of Parajapuki Nalla of Dasmantapur is 6 but their WDF deposit is Rs. 0.78900 lakhs. The Katalamari Nalla of Laxmipur block has deposited in WDF fund of Rs. 0.85600 which is highest.

Table-7: NWDPR, SHG, Koraput (Rupees in Lakhs)

Si No.	Name of the block	Name of the watershed	No. of projects	Member enrolled	Deposit in WDF Fund
1	2	3	5	6	7
1	Similiguda	Seruguda Nalla	5	58	0.66800
2	Dasmantpur	Parajapuki Nalla	6	56	0.78900
3	Laxmipur	Katalamari Nalla	7	68	0.85600
4	Narayanpatna	Gumandi Nalla	8	72	0.55600
5	Bandhugaon	Almonda Alla	5	44	0.76600
6	Jeypore	Kandaput Nalla	3	44	0.48500
7	Lamtaput	Sombali Nalla	4	48	0.42700
8	Boipariguda	Mathapada Nalla	3	27	0.40300
9	Kundra	Asana Nalla	8	78	0.62700
10	Boriguma	Rengaliguda	6	54	0.65600
11	Koraput	Karadigarh Nalla	12	168	0.52300
12	Kotpad	Ambagaon Nalla	4	42	0.58700
Total			75	759	7.34300

Source: Soil conservation office in IX & X Plan

6.2. Cashew Plantation

In 4 blocks, cashew plantation covering an area of 384 he. which has been achieved with an expenditure of Rs. 41.9518 lakhs out of which Rs. 41.9518 received so far. The plantation taken in previous years over an area of 400 he. in 4 blocks with Rs. 29.00 lakhs in phase-I (Table-8).

Table-8: Block wise projects of grafted cashew plantation (Phase-I)

SI. No.	Block	Type of Works	Area in He.	Allotment (In Rs.)
1	2	3	4	5
1	Koraput	Grafted Cashew	100.00	725000
2	Dasmantpur	Grafted Cashew	100.00	725000
3	Laxmipur	Grafted Cashew	100.00	725000
4	Semiliguda	Grafted Cashew	100.00	725000
			400.00	2900000

Source: Soil conservation office in IX & X Plan

In different blocks the grafted cashew plantation shows that the total amount of Rs.29000000 is allotted in a year by ceating a total of 26166 humandays. It is seen that all the blocks are receiving an amount of Rs.725000 for new grafted cashew plantation (Table-9).

Table- 9: Blockwise Mandays of new grafted cashew plantation(in Rs.) (phase-I)

SI. No.	Name of theBlock	Type of Works	Allotment	Expenditure	Mandays
1	2	3	4	5	6
1	Koraput	New Grafted Cashew	725000	725000	6924
2	Dasmantpur	New Grafted Cashew	725000	725000	7448
	Laxmipur	New Grafted Cashew	725000	725000	4395
	Semiliguda	New Grafted Cashew	725000	725000	7399
Total			2900000	2900000	26166

Source: Soil conservation office in IX & X Plan

In phase- II the area covered in all 5 blocks are 100 he. with an allotment of Rs. 4195180 (Table-10) to five blocks.

Table-10: Block wise projects of New grafted cashes plantation (phase- II)

SI. No.	Block	Type of Works	Area In He.	Allotment
1	2	3	4	5
1	Koraput	New grafted Cashew	90.00	1057050
2	Similiguda	New Grafted Cashew	50.00	587250
3	Laxmipur	New Grafted Cashew	100.00	1174500
4	Dasmantpur	New Grafted Cashew	50	587250
5	Lamtaput	New Grafted Cashew	94	789130
Total			384.00	4195180

Source: Soil conservation office in IX & X Plan

In the second phase the expenditure occurred an amount of Rs. 4195180 by creating 55188 mandays (Table-11).

Table-11: Block wise projects of New grafted cashew plantation (phase-II)

SI. No.	Block	Type of Works	Allotment	Expenditure	Mandays
1	2	3	4	5	6
1	Koraput	New Grafted Cashew	1057050	1057050	14859
2	Similiguda	New Grafted Cashew	587250	587250	8259
3	Laxmipur	New grafted Cashew	1174500	1174500	16115

4	Dasmantpur	New Grafted Cashew	587250	587250	8257
5	Lamtaput	New Grafted Cashew	789130	789130	7698
Total			4195180	4195180	55188

Source: Soil conservation office in IX & X Plan

6.3. Coffee Plantation

In 1st phase coffee plantation was taken in 288.10 he. and by govt's encouraging, the area was extended to 2000 he. in 2nd phase (Table-12). Four blocks emphasized in the district out of which Nandapur block occupied highest coffee cultivation i.e.151.800 he.

Table-12: Block wise projects on coffee plantation in phase-I

SI. No.	Block	Area in He.	Allotment	Expenditure	Mandays
1	2	3	4	5	6
1	Koraput	26.500	245895	245859	4677
2	Laxmipur	22.000	204139	204139	3883
3	Lamtaput	87.800	1207625	1207625	18194
4	Nandapur	151.800	1974877	1974877	39506
Total		288.100	3632536	3632536	66260

Source: Soil conservation office in IX & X Plan

In phase two the total allotment by the government is Rs. 1125656 and the expenditure has Rs.11355024 which is over to the allotment. The creation of total mandays are 163472 (Table-13).

Table-13: Block wise projects on coffee plantation in phase-II

SI. No.	Block	Area in He.	Allotment	Expendiyure	Mandays
1	2	3	4	5	6
1	Koraput	280.00	1807400	1807400	21631
2	Semiliguda	250.00	1613750	1616750	18342
3	Laxmipur	270	1742850	1742850	20936
4	Dasmantpur	200.00	1291000	1291000	15539
5	Lamtaput	500	2239960	2338424	38300
6	Nandapur	500	2561600	2561600	48724
Total		2000	11256560	11355024	163472

Source: Soil conservation office in IX & X Plan

6.4.NFFWP relating to soil conservation programmes in various blocks of Koraput district

Under this programme 64 projects of soil and water conservation have been executed out of the estimated cost of 325.55 lakhs and Rs. 297.319 lakhs has been spent for these purpose. The Table-14 indicates some of them in different block.

Table6.14: Block wise NFFWP projects

SI. No.	Block	Nos. of project	Types of Projects
1	2	3	4
1	Koraput	6	WHS & Diversion Weir
2	Kundura	5	WT & Diversion Weir
3	Boipariguda	3	WT& WHS
4	Jeypore	6	WHS/WB, RT
5	Boriguma	8	VT D/W, FC
6	Kotpad	3	VT D/W,
7	Potangi	5	VT D/W,,FC,

8	Semiliguda	5	VT D/W,
9	Dasmantpur	4	VT D/W, WHS
10	Laxmipur	6	VT D/W,
11	Narayanpatna	3	WHS
12	Bandhugaon	3	WHS
13	Nandapur	2	WHS
14	Lamtaput	4	WHS & Diversion Weir

Source: Soil conservation office in IX & X Plan

In NFFWP block wise estimated cost was Rs. 325.549 lakhs for 63 NFFWP projects, which included a total of Rs.1998.985 lakhs for rice and Rs.209.24 lakhs in cash payment (Table-15). The total rice production estimated is 1998.985 million tons.

Table-15: Block wise estimated cost in NFFWP project

SI. No.	Block	Nos. of project	Estimated Cost		
			Rice (MT)	Cash (Lakhs)	Total (Lakhs)
1	2	3	4	5	6
1	Koraput	6	156.900	21.264	30.600
2	Kundura	5	118.600	15.276	22.250
3	Boipariguda	3	108.400	8.875	15.000
4	Jeypore	6	219.600	22.752	35.500
5	Boriguma	8	324.400	31.524	50.500
6	Kotpad	3	114.100	8.053	14.500
7	Potangi	5	135.800	18.987	27.000
8	Semiliguda	5	157.000	15.792	24.850
9	Dasmantpur	4	134.700	15.116	23.000
10	Laxmipur	6	172.400	19.249	29.500
11	Narayanpatna	3	112.000	8.529	15.000
12	Bandhugaon	3	92.000	8.475	13.850
13	Nandapur	2	54.855	5.901	9.000
14	Lamtaput	4	98.230	9.450	15.000
Total		63	1998.985	209.243	325.549

Source: Soil conservation office in IX & X Plan

The total expenditure for NFFWP is Rs. 297.321 lakhs out of which 1717.385 lakh is towards the expenditure of rice and 194.49 lakhs towards cash payment. The expenditure has done for 63 projects in 14 blocks (Table-16).

Table-16: Block wise expenditure in NFFWP projects

SI. No.	Block	Nos. of project	Expenditure Cost in lakhs		
			Rice (MT)	Cash payment	Total
1	2	3	4	5	6
1	Koraput	6	64.900	20.402	28.207
2	Kundura	5	108.600	14.600	20.940
3	Boipariguda	3	108.400	8.875	15.000
4	Jeypore	6	167.200	16.053	25.500
5	Boriguma	8	285.100	29.503	46.003
6	Kotpad	3	114.100	8.053	14.500
7	Potangi	5	103.900	17.309	23.313
8	Semiliguda	5	139.700	14.905	22.873
9	Dasmantpur	4	117.700	14.275	21.090
10	Laxmipur	6	165.000	18.830	28.615
11	Narayanpatna	3	105.500	8.198	14.259
12	Bandhugaon	3	84.200	8.138	13.022
13	Nandapur	2	54.655	5.901	9.000
14	Lamtaput	4	98.230	9.450	15.000
Total		63	1717.385	194.492	297.321

Source: Soil conservation office in IX & X Plan

Out of 63 projects a total number of 380534 mandays were created in 11 blocks (Table-17).
A total of 62280 mandays have generated in Boriguma block which is highest in comparison to other blocks.

Table-17: Block wise labour engagement NFFWP projects

SI. No.	Block	Nos. of projects	Mandays Generated in the Projects
1	2	3	4
1	Koraput	6	32410
2	Kundura	5	23900
3	Boipariguda	3	21630
4	Jeypore	6	33440
5	Boriguma	8	62280
6	Kotpad	3	22820
7	Potangi	5	23940
8	Semiliguda	5	29460
9	Dasmantpur	4	26200
10	Laxmipur	6	31760
11	Narayanpatna	3	18600
12	Bandhugaon	3	18680
13	Nandapur	2	11988
14	Lamtaput	4	23376
		63	380534

Source: Soil conservation office in IX & X Plan

7. Benefits of people from soil conservation and other governmental programmes in different blocks

Appu (1997,P16) states that the term poverty refers to a person's lack of command over adequate goods and services to satisfy his basic needs relating to food, clothing, housing, medicine and education. Yadav (1980 P-3) is of the opinion that a person is poor if he or she is living in conditions of insufficiency of basic need, namely food, shelter and clothing. Sukhatona (1982 P. 247) defined poverty as the condition of the people who could not meet their energy needs. According to Ahluwalia (1977, P- 229), a person living below the fixed poverty line in terms of real per capita income is said to be under absolute poverty. The Indian planning commission has defined poverty line by consumption level is 2400 calories per person per day for rural people. Vasist and Krishnan (1984, P-19) indicated that there are different approach like, income level approach and physical quality of life index, which is based on infant mortality, illiteracy and life expectancy.

From the empirical survey, it is found that most of the people are working in various soil conservation programmes through which it helps them to generate their income and work force. Baipariguda village of Baipariguda block and Lamtaput village of Lamtaput block were chosen for zoon vision

7.1 Gain of people through soil conservation and other government programmes in Boipariguda

It is seen that, people of Boipariguda village has engaged in the soil conservation activities in various ways. People of income group below Rs. 15000 are getting an average of 18 humandays per year by earning Rs.110 per humanday in soil conservation practices and Rs. 106 for other government programmes but the income group of above Rs. 45000 are earning an average of Rs. 115 per humanday from soil conservation and Rs.140 for other government programmes with an average 18 humandays per year (Table-18). It is found that a visible impact shown in the income of the tribal people form soil conservation programmes implemented by government.

Table-18: People's Gain from soil conservation programmes of Boipariguda block on soil conservation (in Rs.)

SI No.	Income range (in Annually)	No. of Households	Ave, income from soil conservation activities/humanday	Ave, income from other Programme/humanday	Average Man days/year
1	2	3	4	5	6
1	Below 15000	32	110	106	18
2	15001-30000	15	126	120	12
3	30001-45000	32	105	110	21
4	Above 45000	23	115	140	32

Source -: Compiled from primary survey

7.2 Gain of people through soil conservation and other government programmes in Lamtaput

The people in Lamtaput also engaged in different soil conservation activities implemented by the government from time to time. The people of income group below Rs. 15000 has been getting an average of 16 humandays per year and earning Rs. 102 per humanday from soil conservation and Rs. 98 per humanday from other government programmes. But the income group of above Rs. 45000 are earning an average of Rs. 140 per humanday from the government programmes and it is found that the higher income groups are not engaged in soil conservation activities but only is getting benefit from personal agriculture practices (Table-19).

Table-19: People's Gain from soil conservation programmes of Lamtaput block on soil conservation (in Rs.)

SI No	Income range (in Annually)	No. of Households	Average income from soil conservation activities/humanday	Average income from other Programmes/humanday	Average Man days/year
1	2	3	4	5	6
1	Below 15000	27	102.00	98.00	16
2	15001-30000	21	106.00	105.00	28
3	30001-45000	31	128.00	89.00	11
4	Above 45000	21	-	140	38

Source -: Compiled from primary survey

8. Conclusion

Interventions through various governmental programmes increase quality of life such as prevention of health measures, sanitation, drinking water, food security and so on. Soil conservation programmes also enhance income of the poor, marginal and landless households through promotion of self help groups and common interest groups. Micro credit and savings, micro enterprise promotion, skill development, primary processing and marketing, livestock promotion, fishery promotion and other farm enterprise development etc is visualized to the local people.

The soil conservation programmes and other rural development programmes benefited to the rural people. Most of the marginalized sections of the society are highly benefited through the application of soil conservation programmes. The huge amount of investment benefited the lower income group by giving labour work in mandays and higher income group is benefited in development of agriculture and its allied sector. It is proved that soil conservation programmes are benefited to the local marginal tribals as well as to non tribal people in Korapput district. It is observed that the actual economic benefit of soil quality is very difficult to measure. But soil conservation programmes need to be diversified in this area.

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