

Original Research Article

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Assured Income of Beneficiary and Non-Beneficiary through Different Activities Implemented under IWDP Programme in Nagaland

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ABSTRACT

Keywords

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The present study to access the assured income through different activities implemented under IWDP with especial reference to the beneficiaries and non-beneficiaries for the purpose two districts from the Nagaland state viz; Dimapur and Zunheboto were selected purposely due to the maximum number of area covered under watershed in the zone further two blocks from each district were randomly selected which was finally having 8 numbers of watersheds areas were selected. In the second stage of sampling a multi stage random sampling was used for the selection of beneficiary and non-beneficiary viz; 160 respondents (80 beneficiaries and 80 non-beneficiaries) were selected randomly from identified watershed areas. Study reveals that the average monthly income of the beneficiary and non-beneficiary. It was found that there is an increase in the income of for both beneficiary and non-beneficiary but comparatively beneficiary has more increased income. The medium farmers have higher increased income of Rs 541.00/- as compared to large farmers with Rs 493.00/-, semi-medium with Rs 440.00/- and small with Rs 280.00/-, respectively in the rural areas of Nagaland.

Introduction

Watershed Development Programmes (WDPs) have been accorded high priority in India's development plan (Anon, 2016).

These programmes have been initiated in India to improve and sustain productivity and the production potential of the dry and semi-arid regions of the country through the adoption of appropriate production and conservation techniques. The WDP approach seeks to improve and develop all types of land

viz., government forest, community land and private land; that fall within a particular watershed. It is a holistic approach to improve and develop the economic and natural resource base of dry and semi-arid regions (Anon. 2017). Watershed is defined as a hydro-geological unit 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 (Walling and Sharma, 2015).

A watershed provides a natural geo-hydrological unit for planning any developmental initiative (Sharma, 2012; Tangjang and Sharma, 2018). The approach would be treatment from “ridge to valley”. The present study having the two specific objectives *viz.*, To evaluate the resource use-efficiency of the sample farmers, and to study the marginal value product of Integrated Watershed Management Programme.

The programme have stressed upon improvement of wasteland, runoff reduction, water conservation and protective irrigation mechanism in all areas including desert prone areas and drought prone areas. Development programs, envisaged under its purview include almost every activity which concerns land, water and bio-mass production. Experiences have shown that watershed as a base is very effective in use and management of land and water resources. With increasing awareness about the problems related to environment, use of watershed terminology is becoming popular and moreover in view of their potential for growth, improvement in income levels and augmenting the natural resource base of the disadvantaged regions of the country (Sharma and Sharma, 2008).

Materials and Methods

The present study is related to IWMP scheme, which is working as per the guideline of Central government with the help of Ministry of Agriculture, Government of India. Development projects require long period of time to reap benefits. Therefore for economic appraisal of development projects, it is essential that the project has been in operation for quite some time. Since the intensive IWMP started in 2008-09, so it is worth, while to study its impact. Since the data of the initial period cannot be compared with the data of recent years. It is more scientific and practical to compare the economy of the

beneficiaries and non-beneficiaries covered in the area of IWMP schemes.

The IWMP was launched in 2008-09 in all 11 district *viz.*, Dimapur, Kohima, Kiphire, Longleng, Mokokchung, Mon, Phek, Peren, Tuensang, Wokha and Zunheboto of Nagaland, out of these districts two districts namely, Zunheboto and Dimapur districts of Nagaland selected because of the fact that it is expected to provide all the relevant information and hence can conveniently be obtained for conducting this study (Anon., 2017).

The project area also has a good network of infrastructure and allied activities related to the scheme such as development agencies, nationalized banks, well-established marketing and communication facilities etc. Keeping all the above facts, both districts of Nagaland are therefore purposively selected, while two blocks were selected from the selected districts, while from each blocks 2 villages (8 villages in total) were selected randomly and then 10 beneficiaries and 10 non-beneficiaries (20 cases in total from each villages), so 80 numbers each of beneficiaries and non-beneficiaries were selected by following the simple systematic randomly sampling techniques with the two (2) specific objectives to conduct the present study:

To examine the different activities adopted under Integrated Watershed Management Programme (IWMP), and

To study the average assured monthly income by the beneficiaries and non-beneficiaries implementation of Integrated Watershed Management Programme (IWMP).

Results and Discussion

Table 1 reveals that the different Entry point activity carried out under IWMP in Nagaland.

Table.1 Different Entry point activity carried out under IWMP in Nagaland

S.N.	Name of the works	No of village	Area(Ha)/No/Running feet
1.	Marketing Shed	115	125 Nos.
2.	Ring-well	19	25 Nos.
3.	Water tank / pond / reservoir	393	488 Nos.
4.	Community hall/repair or renovation of community hall	56	61 Nos.
5.	Toilets	75	946 Nos.
6.	Footstep	66	6121 feet
7.	Fencing of project site	16	206 rolls
8.	Generator	4	4 Nos.
9.	Community kitchen / guest house/building/post harvest storage unit	32	36 Nos.
10.	Renovation of school building	6	6 Nos.
11.	Rostrum	18	18 Nos.
12.	Approach road / repairing of road	18	25.78 Km
13.	Community fishery pond	3	3 Nos.
14.	Bamboo charcoal making hearth	1	1 Nos.
15.	Waiting shed	66	67 Nos.
16.	Culvert	8	8 Nos.
17.	Street light / Solar light	3	3 Nos.
18.	Plastic chair	27	2597 Nos.
19.	Check dam	1	1
20.	Syntex / water barrels	3	116 Nos.
21.	Retaining wall	11	4039 feet
22.	Hand pump	1	150 feet
23.	Purchase of furniture / utensils	3	
24.	Drainage	6	6 Nos.
25.	Sugarcane crushing machine	7	7 Nos.
26.	Pipeline for water reservoir	10	5160 metres
27.	Rice-mill	4	4 Nos.
28.	Agar distillation unit	1	1 Nos.
29.	Others (Granary, village gate, Basketball court, soil metailing etc.)	17	17 Nos
Overall		990	-

(Source: Department of Land resource, Nagaland, 2018)

Table.2 Different activities implemented under IWMP for the beneficiary

S.N.	Activity Implemented	Numbers	Per cent
1.	Trainings	56	16.62
2.	Exposure trips	25	7.42
3.	Demonstration and Exhibition	38	11.28
4.	Distribution of saplings	78	23.15
5.	Agri-based activity	26	7.72
6.	Animal husbandry	40	11.86
7.	Funding of SHG	62	18.39
8.	Others	12	3.56
Overall		337	10000

Table.3 Average monthly income of the beneficiary and non-beneficiary

Sl. No	Category of respondent	Category of respondent according to land holding	No. of respondent	Average monthly income (Rs)		Increase in income (Rs)
				Before IWMP	After IWMP	
1	Beneficiary	Small	5	1000	1280	280
		Semi-medium	16	4100	4540	440
		Medium	33	4246	4787	541
		Large	26	3589	4082	493
Total			80	12,935	14,689	1,754
2	Non-beneficiary	Small	4	1250	1400	150
		Semi-medium	23	2958	3393	435
		Medium	30	3433	3620	187
		Large	23	4861	5222	361
Total			80	12,502	13,635	1,133

From the table we can see that constructions of water tank / pond / reservoir has been carried in most of the village with a total of 393 villages, followed by construction of marketing shed in 115 villages, construction of toilet in 75 villages, construction of footstep and waiting shed in 66 villages, construction community hall/repair or renovation of community hall carried out in 56 villages, construction of community kitchen/ guest house/building/post-harvest storage unit carried out in 32 villages, distribution of plastic chairs in 27 villages, construction of ring well carried out in 19 villages, construction of rostrum and

approach road /repairing of road are carried out in 18 villages, fencing of project site has been carried out in 16 villages, construction of retaining wall carried out in 11 villages, pipeline for water reservoir is carried out in 10 villages, construction of culvert in 8 villages, sugarcane crushing machine set up in 7 villages, drainage and renovation of school has been carried in 6 villages, generator and rice mill has been set up in 4 villages, construction of community fishery pond, connection of street light / solar light, purchasing of syntex/water barrels, furniture / utensils has been carried out 3 villages, setting up of Bamboo charcoal making hearth,

check dam, hand pump, agar distillation unit has been carried out in only 1 village each. Miscellaneous work like construction of granary, village gate, basketball court, soil metalling etc; has been carried out in 17 villages. Similar studies were carried out by the Shuya and Sharma (2014); Sharma *et al.*, (2015); Walling *et al.*, (2017); Shuya and Sharma (2018).

Table 2 reveals that the most common activity implemented by IWMP is distribution of saplings followed by funding of SHG, trainings, animal husbandry, demonstration, agri-based activity and exposure trips. Similar studies were find out by the Sharma (2002); Sharma (2004); Dhakre and Sharma (2010); Mishra *et al.*, (2014); Pongener and Sharma (2018).

Table 3 reveals the average monthly income of the beneficiary and non-beneficiary. It was found that there is an increase in the income of for both beneficiary and non-beneficiary but comparatively beneficiary has more increased income.

The medium farmers have higher increased income of Rs 541.00/- as compared to large farmers with Rs 493.00/-, semi-medium with Rs 440.00/- and small with Rs 280.00/-, respectively. Similar studies were carried out by the Sharma (2011); Sharma (2014); Sangtam and Sharma (2015); Sharma *et al.*, (2016); Sharma *et al.*, 2018.

Policy implications

As per the above findings of the present study the following policy implications may be drawn for the betterment of the study areas:

Information centre should be set up at the block level so that there is timely dissemination of the information to the beneficiary.

More focused should be on skilled based training.

The financial assistance provided by the government for livelihood activity should be enhanced and should be given at the appropriate time.

Training institute should be set up at the block and district level also.

Value added / post-harvest management should be encouraged.

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