EDITORIAL



Dr. Sudarsan Panda, IFS Principal Chief Conservator of Forests & Project Director, OFSDP-II



From Project Director's Desk

The Odisha Forestry Sector Development Project, Phase – II (OFSDP-II) has been implemented since 2017- 18 in twelve Territorial and two Wildlife Divisions of the State, with the financial assistance received from Japan International Cooperation Agency (JICA). Implementation of Satoyama model, on a pilot basis, in Badarma Sanctuary area of Bamra Wild Life Division in Sambalpur District, has been, *inter-alia*, included as one of the biodiversity component of this project. For this purpose, Nunvet village, located in Badrama landscape was selected after a series of discussions with the stakeholders including local communities. Detail assessment was made by experts of OFSDP-II in collaboration with the Regional Chief Conservator of Forests, Sambalpur, Divisional Forest officer of Bamra Wild Life Division and field officials. A project proposal to implement the Satoyama initiative was finalized during 2019-20, which is now under implementation.

This programme has been initiated first time in India under any JICA project as a pilot component. It is significant that under OFSDP-II these tasks are to be implemented in Bamra (WL) division in Odisha and it would be assessed by other forest projects for similar strategic implementation. A special feature on this component incorporated in this issue would be enriching to understand the concept.

In this issue of Banayana, various reports of convergence, project implementations and case studies from DMUs are covered. These stories are encouraging as part of coordinated effort of divisional units in achieving the project objectives of OFSDP-II. It is expected that these highlighted reports would be learning lessons for all the DMUs in effective project implementation.

Dr. Sudarsan Panda, IFS

CONTENTS

1 Editorial

2 Cover Story

4 Report

5 Success Story

6 Convergence Story

8 Case Study



SATOYAMA INITIATIVE UNDER OFSDP-II

Re-introduction of Bhajana variety of rice as a Satoyama initiative in OFSDP-II

Introduction:

'Satoyama' is a Japanese term, referring to an ecosystem comprising of a mixture of forest, pastures, paddy and other cultivated fields, streams, ponds, irrigation ditches surrounding a Japanese village. The Satoyama model is Japanese vision of an eco-system, that entails resource management & land use to balance the twin needs of biodiversity conservation & sustainable utilization of natural resources. Accordingly, the Satoyama models, which are internationally recognized as Socio-Ecological Production Land Scapes& Sea Scapes (SEPLS) are designed to develop a common awareness on the value of nature & to create models for sustainable rural society in harmony with nature.

In Japan, Satoyama was recognized as an integral part of the human society living around forests. The Satoyama was considered regulating the life pattern of the forest fringe villagers till 1940s. However, after the Second World War (1939-45), the rural economy of Japan shattered completely and the people were compelled to abandon their villages in search of better livelihood opportunities in urban areas, where massive reconstruction was needed. The young and middle aged people migrated to urban centres leaving behind the old and disabled persons in villages. This resulted in to loss of traditional agricultural practices along with social and cultural practices of rural society. There was a heavy demand of timber to cater the infrastructure development of urban areas which led additional pressure on forests resulting their increased degradation. The ecological importance of Satoyama eco-systems, was recognized after middle of the twentieth century and now efforts are being made to revive Satoyama so as to conserve the biodiversity of the place and to rejuvenate the lost social traditions and cultures.

The Satoyama initiative has now become a global effort to realise that the societies are in harmony with nature. It is a joint collaboration of United Nations Universities (UNU) and the Ministry of Environment, Japan. The initiative focuses on the revitalisation& sustainable management of Socio-ecological Production Land Scapes and Sea Scapes (SEPLS). In 2010 the international partnership for the Satoyama Initiative (IPSI) was established to implement the concept of Satoyama and promote various activities by enhancing awareness and creating synergies among those working with SEPLS.

Relevance of SEPLS Initiatives in Indian Context

As India is a growing economy, migration of people from rural to urban areas in view of less economic avenues in the former and better economic opportunities in the later has become a common feature across the length and width of the country. The rate of migration from hilly areas to plain areas has increased many fold in past few decades. This is a matter of serious concern as the same can cause a situation which can be compared to the situation that prevailed in the case of Satoyamas of Japan.

The Green Revolution was started in the fifth and sixth decades of the twentieth century in India, under which to increase agriculture production many high yielding varieties of cereals, oil seeds, etc. were introduced. Most of these high yielding varieties require very strong doze of fertilisers and pesticides to yield optimum production. The water requirement for the high yielding varieties, in general, is very high in comparison to the conventional crop varieties. After harvesting of the crop, bulk of the fertilisers and pesticides remains in the soil and they cause soil pollution of varied kinds. In a span of few years, the soils lose their production capacity and even in many cases the soil turns non-productive and unfit for any future cultivation. In such a scenario, the farmers are discouraged to profess agriculture.

For instance, in many parts of India, the traditional cultivation of local paddy varieties has been replaced by high yielding varieties. This has not only led to loss of local gene pool of paddy but also caused loss of fertility of the soil. The soil pollution is making lands unsuitable for any further cultivation. In this context it is worth mentioning that Odisha has been considered as the centre of origin and genetic diversity for cultivated rice. Thousands of rice varieties were cultivated in Odisha at the time of independence. Even after the Green Revolution, many high yield varieties of paddy were being cultivated by farmers. But, in the past few decades, the cultivation of traditional paddy varieties has considerably reduced. For maintenance of genetic pool and enhanced biodiversity, it has become necessary that cultivation of traditional varieties of crops, more particularly of cereals like paddy, is promoted.

Satoyama Initiative in Odisha Forestry Sector Development Project Phase-II

The Odisha Forestry Sector Development Project Phase – II(OFSDP-II) is in operation since 2017-18with the

financial assistance received from Japan International Cooperation Agency (JICA) in 12 Territorial and two Wildlife Divisions of Odisha. Satoyama model implementation has been taken up on a pilot



Location map of Nunvet village

basis, in Badarmalandscape of Bamra Wild Life Division and this is one of the biodiversity component of the OFSDP-II. For this purpose, Nunvet village, located in the above landscape was selected after a series of stakeholder consultations. At present, ten villages (EDC) have been identified in Badarama landscape for inclusion in the Satoyama initiatives under OFSDP_II on pilot basis. A comprehensive project proposal to implement the Satoyama initiative was finalized by the Project authorities during 2019-20, which is now under implementation. One of the sub-component in this initiative is re-introduction of traditional food grain varieties, which are not being cultivated now.

Rationale for Intervention:

The Nunvet village falls under Jamankira CD Block of Sambalpur District. It is situated at a distance of 17Kms from the headquarters of Badrama Forest Range. In total there are 119 households in this village which has a population of 326, out of which 248 belongs to Scheduled Tribe community and 78 are of general castes. Of the 119 families approximately 70% belong to Below Poverty Line (BPL) category while the remaining 30% are of middle income group. The prevalent castes in this village are Gond, Munda, Chasa, Rautia, and Kumbhar. The Nunvet village comprises of 5 hamlets namely Mayapal, Talipada, Chasapada, School pada, Uparpada. The villagers in Nunvet are very much organised which is evident from the fact that the village is free from alcohol menace. They observe social festivals like Nuakhai, Pushapunei, Bhai jauntia, Rajo, Dussheraetc.

Agriculture is the major source of livelihood in Nunvet village. Paddy is the major khariff crop. The other crops include pulses, such as, black gram (*Vigna mungo*) horse gram (*Macrotylomauniflorum*), millets like ragi (*Elusinecoracana*), oil seeds like rasi (*Sesamumindicum*) and ground nut (*Arachishypogaea*), spices such as turmeric (*Curcuma longa*) & coriander (*Coriandrumsativum*). Seasonal vegetables of several types are also grown by the villagers for their own



Landscape of Nunvet village

consumption and as a means of their livelihood. In a ddition to a griculture, villagers also depend upon collection of minor forest produces like chara

(Buchnanialangen), harida (Terminalia bellarica), bahada(T.chebula), aonla (Emblicaofficinalis), kendu (Dyospyrusmelanoxylon), mushrooms, etc.) for their livelihood.

Re-introduction of Bhajana Paddy in Nunvet Village

Nunvet village falls under the North Western Plateau Agro climatic zone. The soil type here varies from red – laterite to red –yellow & red-black. The climate, in general, is hot, moist and sub humid. The average annual rainfall is around 1240 mm. and most of the precipitation occurs during monsoon months.

As a first initiative under Satoyama, re-introduction of Bhajana variety of paddy (*Oryza sativa*) has been attempted. The Bhajana variety was being cultivated in this locality about 20 years back, but later on it was exchanged with high yielding rice varieties. In the consultation process, the elders of Nunvet village



'Bhajana' in Paddy form



'Bhajana' in Rice form

admitted that with the application of chemical fertilizers, required for raising of high yielding paddy varieties, the productivity of their agricultural fields has diminished and advocated for re-introduction of 'Bhajana' variety from this year through a completely organic method. The Bhajana variety possesses certain specific traits such as tolerance against biotic and abiotic stresses, peculiar aroma, grain quality and ease in cooking. It is hoped that that the initiative will help in restoration and conservation of gene pool of paddy by cultivation of local paddy variety i.e. Bhajana.

For re-introduction of traditional agricultural practice under Satoyama initiative, the staff of Badrama



Wildlife Division alongwith the project staff and consultants facilitated the farmers of Nunvet in collection of seeds of Bhajana from far off places like Ujjalpur in Sundergarh District, Rairakhol in Sambalpur District. An agriculture specialist cum consultant of Bhubaneswar namely SabhapatiKhadanga having expertise in organic farming was hired by the OFSDP-II to build up the capacity of the farmers of Nunvet in organic farming. The farmers of Nunvet village voluntarily adopted the organic method and they are fully prepared to take up the farming of Bhajana after this mobilization.



Gender equality in Satoyama initiative_ Bhajana cultivation by woman farmer

After availing first-hand knowledge from the agriculture expert, the farmers of Nunvet prepared organic fertilisers, insecticide, hormones, etc. by utilising the locally available resources.

Twelve farmers of Nunvet have adopted organic farming of 'Bhajana' this year over a total land of 2.14 acres. They have raised the seedlings & their capacity has been built up on SIRI technology of transplanting.



Meeting with EDC members of Nunvet



Luxuriant growth of Bhajana paddy in Sept,19

With the successful harvesting of, Bhajana, it is expected that the objective of Satoyama initiative will be achieved to the extent of reviving an abandoned & traditional agricultural practice in Nunvet village. Similar agricultural, water conservation, livelihood measures and forestry and wildlife interventions will be implemented during 2020-21in Badarama landscape under Satoyama initiatives of OFSDP.

MASSIVE PLANTATION DRIVE BY SUBARNAPUR DMU

Massive Plantation drive, awareness programmes and competitions on environment theme carried out in the Forest Division with an objective to make environment green and initiate establishing a dense forest around the Subarnapur district.

Hon'ble Justice, High court, Odisha Justice Sri Chita Ranjan Dash started the noble initiative by planting saplings at Jhiki, Sonepur on dated. 25.08.2019. District Magistrate & Collector and DFO Cum DMU Chief and other Senior officials and employees from all department of Subarnapur district and all VSS members also planted saplings in this occasion.

A meeting was also organized to mark the occasion. Addressing the gathering Justice Sri Dash said "We should keep our environment clean & green for a healthy society. District administration along with the OFSDP-II has taken several initiatives to keep this plant environmental

friendly". He asked for cooperation of all employees, workers and VSS members for making the district clean and green. 75 no. of OFSDP-II adopted villages



under Subarnapur DMU were involved themselves and took responsibility to plant minimum of 3000 plants in each village by their own. They pledged to look after the planted sapling by designating the trees to every individual. DFO cum Divisional Management Unit Chief Sri Susanta Kumar Samantaroy coordinated the programme.



INNOVATIONS

One of the primary objective of the Odisha Forestry Sector Development Project is restoration of degraded forest. To promote the forest restoration many activities and action plans are initiated at ground level. Apart from community mobilisation, a major chunk on forest restoration work goes into the developing best practices of its stakeholders and the forest dependent communities.

Forest officials and staffs engaged at field level forest management resort to some of the best practices around the year to motivate the communities in safe guarding the forest resources. They also devise innovative plans to incetivise the community contributions in forest restorations, safety and management.

In this context, Subarnapur Forest Division under OFSDP-II has experimented with a number of ideas. In order to increase tree cultivation outside forests, "Tree cultivation in Private Lands" by the special initiative of Subarnapur DMU.

During this quarter, Subarnapur DMU especially introduced a programme to sow seeds in order to ensure maximum chances of survival. In recent years, the technique of "seed" sowing has picked up in Subarnapur Forest Division. Earlier during summer, special guidance of the DMU chief, the communities were encouraged to collect locally available seeds. The field level staff, VSS, EC and animators were specially instructed to give maximum effort in this regard, as a result a good amount of seeds were collected throughout the summer. The varities of seeds were store in VSSs.

During July in the occasion of "70th Vana Mahotsav" observation all 75 VSS of Batch-I, II & III under Subarnapur Forest Division were adopted the method and pre treated seeds were directly sowing both inside and outside of the assigned area. The VSS members, WSHG members, School Children, Project staffs & forest department staff's contribution towards seeds sowing is highly appreciated in all level.



VSS BUILDING:

VSS Building-cum-IGA Facilitation Centre: The symbol of unity and integrity in Karanjia DMU

The VSS members of the Khandiadhar relocation colony in Karanjia have a reason to celebrate after a long time. They are happy that after relocation from the buffer area of Simplipal to the relocation colony, they have a common community building to utilize for their multiple social occasions as well as for their livelihood. Due to the inclusion of their VSS in the OFSDP-II project, this VSS has built a "VSS Building-cum- IGA Facilitation Centre" under the project assistance.

The Khandiadhar VSS is situated at a distance of 23 km from Karanjia and 11 km. from Dudhiani FMU under Karanjia DMU. There are 79 households in the Khandiadhar VSS. All the HH members are primitive Tribe. There are two types of tribe are residing like Khadia- 47HH and Khole-32HH with total population of 236. These two

primitive tribes were relocated in the year Dec.23.12.2016 from the buffer zone, Kiajhari village. As there were no basic facilities like health, education, communication etc. available in the buffer zone so they relocated in the Khandiadhar village under Badagaon GP, Dudhiani FMU & Karanjia block by the DFO-cum-DMU Chief, Karanjia DMU.

Apart from many facilities, there was no common house for the village people, so the VSS members faced alot of problem in organisingany social meeting. Generally, VSS members of Khandiadhar use to gather under the tree or in an open field for any meeting or programme interventions under health, forestry etc. This was not always possible to gather many people in one place for a common open meeting. It was entirely impossible during rainy season. Not only the villagers



were affected, but also the other village institutions like VSS, SHG, CIG, Youth Club etc. also affected due to lack of a common community centre. After the intervention of the OFSDP-II in Dudhiani FMU, Khandiadhar VSS was selected for the project intervention. Accordingly, the Micro plan was prepared for the Khandiadhar VSS and submitted before the PMU for consideration. Among the other demand, VSS building was the foremost demand of the VSS members. After getting the positive opinion from the PMU, DFO-cum-DMU Chief, Karanjiastarted the field clearance for the VSS building like site selection preferably a government land within the VSS areain presence of the VSS members. After finalization of the construction site, the VSS building started with the involvement of the VSS members according to the project guideline by the PMU. During construction period, time to time VSS meetings were organised for timely completion of the VSS building cum IGA facilitation centre. After completion of the VSS building, it was inaugurated by the Project Director, OFSDP-II also for the use of community groups. VSS building was handed over to the concerned committee members in a proper procedure. The VSS members are now happy by getting such unexpected common building within the reach of the villagers in such a short period of time. Now VSS committee members like President, Vice-president, treasure and the Animators are the main custodian of the VSS building-cum-IGA facilitation centre. They are now looking after the VSS building in daily routine basis. All the meeting of the VSS viz. EC, GB, SHG meeting, other department meeting and any emergency meeting of the VSS are now being held in this building regularly. The VSS building is provided with all accessories viz. a steel Almira, table, chair, mat, emergency light and other official documents for record keeping. The VSS members are using this building for VSS office purposes apart from the venue for other different government or social meetings with prior permission of the VSS. Due to this VSS building, the VSS and the SHG meeting are regularized and the record of the meeting maintained properly.





VSS-cum-IGA centre of Khandiadhar VSS in Karanjia DMU

CONVERGENCE:

Convergence with ITDA and Agriculture Dept brings augmentation of Farm Productivity in Karanjia DMU

It is said that convergence with other development programmes helps not only to supplement funds for holistic treatment but will also complement each other. In the community development sector this is imperative to utilize the resources optimally for the benefit of the community and initiate number of programmes which could augment livelihood options of the members in the locality. Under OFSDP-II, livelihood development programmes are the one of the foremost priority and there are many initiatives taken up at field level to benefit the beneficiaries living in the fringe forest areas.

In one such case here, Athar Deuli SHG of Kumudabadi VSS in Ektali Gram Panchayat of JashipurBlock under Gurguria FMU, Karanjia DMU has created some remarkable achievement under convergence. This VSS was selected in the 2nd batch OFSDP-II under Karanjia DMU in OFSDP-II project. The VSS is predominated by the ST population with all BPL families. The VSS is around 12km away from the FMU head quarter and 35km away from the DMU head quarter. The road to the VSS is mixed with kachha and fair weather road connecting to the VSS. The VSS has 56numbers of household with total population of around 287members. The main occupation of the VSS members are agriculture. The VSS is situated at the foothills of the Similipal Tiger Reserve (STR) Forest. So the disturbance of the wild animals is regular affair to the human habitat and to the agricultural field. Particularly the elephant disturbance in the agriculture field is a challenge at the time of harvesting since very beginning. The villagers always put complain to

the Forest Department and block office for their crop loss and threat to the human life. Forest department always extended cooperation for the crop loss and protect the human habitat. But it is not always possible to provide the in time cooperation to the VSS members.

So after intervention of the OFSDP in the VSS, the members discussed the matter of depredation of elephant in the agriculture field during harvesting which has been continually affecting the livelihood of the VSS members. After series of discussions, the members of the VSS demanded for implementation of agriculture work to minimize the time of harvesting and get more profit from the agriculture. During the VSS meeting the members of the village Kumudabadi raised this issue for providing alternative agricultural activities with limited timeline. OFSDP decided to link this issues through the convergence with the line department like ITDA and Agriculture under the Karanjia Sub-Division. After meetingswith ITDA-Karanjia and Agriculture Dept, it was finalised that Agriculture Dept. will provide the subsidy for the machine and ITDA-Karanjia will provide the agriculture implements like Power Tiller and Power Reaper from the Focus Area Development Programme (FADP)as per need based assessment on economical point of view of the associated SHGs. As per guideline, with the nominal contribution of the SHG the machines were provided to



the SHG Athar Deuli on the basis of experience in the agriculture field and group activity. The Athar DeuliSHG consists of 12 members and all are schedule tribe and BPL category. Previously the Athar Deuli SHG was doing this group activity by involvement of all the members. After receipt of the agriculture equipments, SHG has engaged persons to man, operte and maintain the machines and leveraging profit out of that to add income for the SHG.

The details of the machine provided

Rs.	3,05,000/-
Rs.	75000/-
Rs.	65000/-
Rs.	1,25,000/-
Rs.	40,000/-
	Rs. Rs. Rs.

Cost & Benefit Analysis

In the first year of harvesting, SHG got the profit of Rs.17000/- in paddy only. The group had fixed the rental price for the machine i.e. per hour Rs.600/- and the diesel requirement is 700 to 800ml is born by the SHG. Machine operator taking Rs.100/-per hour.So the net profit is coming around Rs.400/-.

Now the members of the VSS as well as the SHGs thankful to OFSDP-II for doing the successful convergence with the line department for the benefit of the SHG as well as the VSS members of the Kumudabadi.



Members of Athar Deuli SHG under Kumudabadi VSS of Karanjia DMU

Program on Maize, Arhar and Groundnut Cultivation in Karanjia DMU

Agriculture is the main occupation of the members of the Jharbeda and Kenjhara VSS under Dudhiani FMU of Karanjia DMU. The members of the VSS are mostly small and marginal farmers. They have been practicing agriculture in traditional method since beginning. These community members were generally unaware of the real outcome of agriculture particularly in paddy cultivation. They used to get less quantity of paddy through this traditional method. In the VSS, the family dependency is high on the agriculture production but due to less production, some family members were preferring to

migrate outside for alternate livelihood. After intervention of the OFSDP-II, under convergence with Agriculture and ITDA Karanjia, Forest Department mobilized the high yielding variety of seeds like Maize (yellow- 16kg & sweet corn-3kg) from ITDA, Arhar-40kg and Ground Nut-200kg. from Agriculture Dept in Karanjiaregion for inter cropping with application of modern technology.

OFSDP-II and Agriculture Department in collaboration with ITDA staffs sensitized the VSS members of Jharbeda & Kenjhara on the necessity of adopting this farming mechanism. The beneficiary selection process



was completed and simultaneously site preparation was done with involvement of OFSDP-II staffs. In Jharbeda VSS, two SHGs like MT Barsharani and Om Sai Baba and 15 individual members and in Kenjhara VSS, one SHG like Subhashree and one individual member are involved in the cropping pattern. Maize seed raised in 5.5 acres of land and Ground Nut and Arhar inter-cropping were done in 10.85 acres of land.

Now the members are happy in the alternate crop pattern. The other members of the VSS are showing their interest for the alternate source of livelihood and particularly in inter-cropping. The technical staffs of ITDA and Agriculture are regularly visiting the place for follow

u p a n d s h a r i n g i n s t a n t knowledge at the site. The V S S members of J h a r b e d a, Kenjhara and other nearby VSS are now



Beneficiaries of Agriculture Convergence programme

motivated and ready to take up this activity in larger cropping areas in the coming year.

CASE STUDY: IMPACT OF SOCIAL CHANGE

Khemundiamunda turned an ideal VSS under Sonepur FMU in Subarnpur DMU

Smoking tobacco, drinking alcohol etc are the reason of unseen personal traumas and creates unnecessary conflicts in the family and society which leads to unrest in communities in general. Understanding the menace of alcohol in their adjoining areas, community members in Khemundiamunda village under the Sonepur FMU of Subarnapur DMU, recently initiated complete prohibition of alcohols in their village. Furthering this campaign, the members of the VSS and women self-help groups jointly launched a combine drive to pledge for the alcohol free village.

Khemundiamunda has primarily 69 house holds and the communities are of different categories viz. ST, SC, OBC etc. The village is situated in the feet of Barapahad Reserve Forest and the beautiful hill alongside. It is surrounded by dense forest. Most of the villagers are dependent on farming and agriculture. They used to grow paddy, Pulses, Oil seeds, etc. they have been collecting NTFP products in seasonal basis to meet their livelihood.

Earlier, a majority of male members of the house hold were addicted to illegal liquor brewed from local mahua flowers, which is abundant in this village. As a result of this, violent abuse in families, financial stress, unsocial activities have grown over a period in this area. The women members of the family were becoming restless due to the conflicts in the family and social habitat which was affecting their livelihood as well. Gradually, they sensed the gravity of the situation and decided to prohibit this rampant activity by counselling, sensitizing and encouraging people to give up alcoholism.

Initially their efforts were met with stiff resistance and opposition from liquourbrewers and consumers as

well.But, backed by law enforcing machinery, the SHGs launched an all-out offensive against such unscrupulous liquor



Community mobilisation in Khemundiamunda VSS

manufacturers and consumer, who were imposed hefty fines. The rural women, at times, even wielded the lathi (stick) for teaching such people a lesson. Complete prohibition was imposed in Khemundiamunda villages. However, a liquor outlet in the village Khemundiamunda was closed down after resentment among local women. Drawing inspiration from this VSS, the social drive was carried out in adjoining areas for the social change. A similar alcohol free campaign was taken up by the local women in the adjoining villages who are up against the liquour outlet and alcoholism.

These villages have witnessed a transformation now and rural folks have a lot more disposable income to care of others needs such as food, health and education. The savings have gone up and the crime graph has seen a downward trend.

EDITORIAL BOARD

Editor-inChief:

Dr. Sudarsan Panda, IFSProject Director, OFSDP-II

Editor

Dr. Meeta Biswal, IFS Addl. Project Director (IME)

Co-Editor:

Shri Biswajit SahooSatet Programme Manager
Knowledge Management, Publicity & Publications