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AGRONICA

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Department of Business Administration, Utkal University

Agri Livelihood





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EDITORIAL



Livelihoods are an important part of human existence. In order for a population to survive there is need for livelihoods that would sustain and support households. It refers to "means of securing the basic necessities of life". The rural livelihood mostly depends on agriculture, with part of the population diversifying into non-farm activities to attain a sustainable livelihood. The Livelihood Mission of Odisha aims to enhance the socio-economic condition of the rural poor by setting up a large number of manufacturing industries and agribusiness centres in rural areas and strengthening 'self-help groups' and providing skill development trainings. The main objective is to alleviate rural poverty and seeks to promote sustainable community based institutions with provision of financial and economic services and other entitlements to the rural poor. The centrally sponsored "Deendayal Antyodaya Yojana aims is to enhance social and economic status of the rural poor through development of self-sustained and community managed institutions. The targeted poor households are mobilized into thrift and credit based Self Help Groups. The Vision "By 2025, the rural people of Odisha will live in a state of wellbeing and free from all forms of poverty and have the capacity to cope with all types of vulnerability".

The agriculture sector determining the livelihood is closely associated with climate, which balances social wellbeing and economic prosperity. Odisha is bearing the brunt of climate change as the number of rainy days per year has been gradually declining even as quantity of rainfall remains the same. The detail analysis shows that between 1963-2020 the number of rainy days in the state has come down from 90 days to 63.4 days. The state is witnessing intense rainfall as well as severe floods and drought and the massive floods in the after math of cyclone .Cyclone visits the state almost at interval of 3-4 years causing heavy damage to infrastructures i.e. field bundings, irrigation channels, irrigation projects, dams, tube wells, lift irrigation systems, filling paddy fields with sands and saline soils.

The livelihood security and poverty are closely associated with nutrition. The infant mortality rate is now 40 points and Material mortality rate is 150 (2016-18). Prevalence of stunting and wasting among the children less than 5 yrs of age are 34.1 and 20.4 respectively. Almost 8 % children are malnourished the recommended dietary intake gap for most nutrients is more than 50%. About 51% of women (15-49 yrs) are anemic in the state and 78% households are practicing open defecation. Food

security and nutrition related problems are i.e. wasting, stunting underweight, chronic energy deficiency and malnourishment.

Odisha remains the poorest of the 11 major Indian states, with 35.69 % of the rural population (or 17.35 million people) living below the poverty line. Its per capita income now is 80.50 percent of the average per capita income of the country as per Odisha Economic Survey, 2022. Incidence of poverty in Odisha is now about 18% and the poverty is more concentrated in rural areas where agriculture is the only and major livelihood option for majority of people. Amongst the 28 states of India the human development index of Odisha lies in the 18th position as per 2011 census as against the 5th as per 2001 census

On analysis it was found that on an average agriculture sector contributes 21,7% to state income i.e. crops account for 13.65%, livestock is 2.49%, forestry contribute 2.71% and fishery is 2.43 %. The sources of income of a farmer house hold in Odisha are Rs 8,513/, 1/3rd rd from Agriculture, and the rest from wages and non-agriculture sectors.

For sustainable livelihood, the state Government is taking steps on Climate resilient agriculture, and has introduced a number of Krushak assistance programmes for small/marginal farmers.

These programmes include

- {i} Kalia Yojana,
- {ii} Mudra scheme,
- {iii} Comprehensive crop insurance, {iv} Farm loans,
- {V} Joint liability group,
- {vi} Livelihood projects under horticulture,
- {vii} Farm Producers Organisation policy. To mitigate Malnutrition problems Swachha Bharat Yojana has been introduced.

Recently the NITI AYOJ has revealed that 2/3rd of rural income come from non-agricultural sectors. Hence it is wise to promote lucrative allied agriculture such as horticulture and floriculture to boost farm income. A multifaceted game plan rather than MSP hikes and loan waiver scheme can improve livelihood.

Prof. Benudhar Bhuyan
Advisor, Centre for Agri-Management

Success story of “Padma Shri” Awardee Shri. Bata Krushna Sahoo, for self-sustaining model of aquaculture.

Shri. Bata Krushna Sahoo, aged 70, was born and brought up at Sarakana Village, Khurda District, Odisha. He was awarded with the “Padma Shri”, the fourth-highest civilian award of the Republic of India for his pioneering work in the field of animal husbandry (Especially fisheries) in 2020. In 1986, he applied for the lease of village panchayat pond for three years at Rs. 12,300/-. He visited the Central Institute of Freshwater Aquaculture (CIFA) and Krishi Vigyan Kendra (KVK) at Kausalyaganga, Bhubaneswar, Odisha and interacted with the scientists there and learned how to make fish farming profitable. He meticulously followed the instructions and suggestions of the scientists from CIFA regarding the quality feed offered for the fish, weeding out predatory fish from the pond and securing the pond to avoid stealth.

During 1987, for the first time he started grow out culture of carp fingerlings for one year, where he got very less revenue. Later on, by the suggestions of CIFA and KVK, he acquired best quality brooders and started the fish spawn production in hapa’s which yielded with 0.3 million spawn and thereafter by following the scientifically advanced techniques like induced breeding of carps gained much more interest and at present he is capable of producing nearly 150 million seed of improved varieties of carps each year and has become a well-known face in the fish seed business in his state with an annual revenue of nearly 12 lakhs. He says compared to agriculture, fish farming has very few associated risks and therefore he organizes the “aquaculture play school” supported by ICAR-CIFA for educating the local fish farmers. Sahoo trained nearly 1000+ farmers across the Odisha about the quality seed production.

During his recent interview with ICAR-CIFA’s Agri business incubation (ABI) staff, he mentioned that in spite of the covid-19 pandemic, there was no problem in seed supply business because his prime customers are from nearby villages. So, there



is no reduction in demand for seed, although there are 3-4 new hatcheries near that area which offer home delivery and supplying the seed on credit to farmers. Scientists from the ICAR-CIFA and KVK, khurda told that it was because of Sahoo’s consistent interaction with scientists and using the latest available scientific technologies, that he was able to create a viable and self-sustaining model of aquaculture.

According to Sahoo, by taking due care of ponds through good quality seed stocking, regular proper feeding and maintaining water quality would definitely bring a profit of Rs.2 lakhs per acre minimum, whereas the paddy could give only Rs. 20,000 per acre. He also informed that with good quality seed from quality brood fish of improved variety could be taken up if the yearlings are stocked and maintained in a small rearing pond. Shri. B.K Sahoo is an inspiration to hundreds of young entrepreneurs in India who are willing to establish and operate carp hatcheries, as the availability of good quality fish seed in adequate quantity will lead to the success and progress of grow-out fish culture in days to come.



Doubling of Farmer's Income

Reality or Myth ?

Laxman Mahato, age 34, an economics graduate took up sweet corn cultivation in 2016. His share of landholding was 2 acre at Khunti in Jharkhand. Traditionally, they grow maize in kharif. He switched to sweet corn and managed with 2MT/acre yield. But monetization became a nightmare. He could not sale more than 200 pcs/day in retail at Ranchi. So, he moved goods to Bhubaneswar, 450 km away. It added cost of Rs3.50/kg freight and 7% commission. Either of the channels was not remunerative for the time, energy and cost incurred.

In 2018, he encountered a Processing Company which was promoting sweet corn. It had taken multi-locational trials on parameters of seed, nutrients, plant protection, water requirement and season. With more than 3 yrs of trials, it gained sound understanding on Package of Practices (PoP). It demonstrated yield improvement from 2-3 to 6-8MT/acre. It also demonstrated extended round the year cultivation window for maximization of per acre return. But for the reasons of marginal farmers and fragmented land holding it had the issues of scaling up. It could not source Raw Material (RM) from faraway places as the sweetness dropped after 6 hrs of harvest. The company was struggling to manage the capacity utilization of Individual Quick Freezing (IQF) line.

Local sourcing was on the anvil. The problems of Farmer & Company were reciprocal. While farmer was looking for a hassle free market for demonetization, company was looking for assured supply round the year. Laxman was an early adapter,

who took advantage of extension, inputs services & technical guidance of the Company. The package came bundled together with inputs, technical guidance & buy back. Not worried about monetization Laxman focused on yield & area expansion. He matched 6-8MT/ac yield & expanded area from 3 to 30 acre on lease rental mode. This improved his income from Rs25K/annum to Rs18L/annum. The total expenses were about 25% of the returns. As the crop was short duration (90days), he could take multiple crops on the same piece of land. Many of the villagers followed the foot print of Laxman. As a result incremental cash flow to the village about Rs48L/annum with an estimated cultivation of 80acres of sweet corn. The cluster with 300 acre had a cash flow of about 1.8 Cr. It became a true circular economy.

This activity falls under the recently enacted Act, "The farmers (empowerment & protection) agreement of price assurance & farm service act". But it is not as simple to implement as it appears. There is a dichotomy.

Governments operate on a developmental agenda & Private Companies operate on value addition proposition with intent to make profit. Government's focus is not on market linkage; similarly development is not the focus of the Private.

1. The million dollar question is will the two organizations marry for a large-scale replication of the stated model?
2. Having taken the step forward on enacting the act, what is our road map for implementation?

Mihir Mohanta,
Mother dairy, New Delhi



भूमगादी जैविक कृषक उत्पादक क. मर्चा, डंतवाड़ा
 जैविक उत्पाद प्रसंस्करण केंद्र, डंतवाड़ा

Success Story of Bhoomgaadi Organic Farmer's Producer Company in promoting livelihoods

Dankshin Bastar Dantewada is a remote district situated in the southern part of Chattisgarh. Surrounded by hillocks, covered with the semi-tropical forest. It is one of the most undeveloped districts in the country. Around 71% of the population of Dantewada belongs to Scheduled Tribe predominantly dominated by Madia and Muria community; 60% of its area is covered with the forest, and the population density is low.

Dantewada has a great potential for Agriculture. Due to sparse population, the average land-holding is around 5 acres. The farming is rain-fed.

Apart from paddy (70% of the cropped area) and minor millets (18% of the cropped area) the farmers also grow maize, good diversity of pulses and oilseeds on the upland. The extent of horticulture with crops including Mango, Banana, Cashew and vegetables is currently low and covers around 3% of the cropped area.

Considering the need for the intervention, the district administration of Dantewada took various steps to improve agriculture based livelihood through the approach of building upon the strengths of the community. In 2014, the pilot was started to promote cultivation of indigenous varieties of paddy and millets and improve their productivity through SRI. Since the usage of chemical fertilizers and pesticides is very minimal in the district, the practices of organic farming were promoted. In 2016, Nirmaan Organization was engaged in these efforts to streamline and strengthen the pilot efforts and take them to the next level. A cadre of Community Resource Persons (CRP) trained extensively on organic farming was developed at the village level. The farmers were organized into groups and were given regular trainings on organic cultivation along with the women SHGs. The process of organic certification was also started with the support of NCOF.





With the support of Nirmaan, in 2016 the organic farmers came together to form Bhoomgaadi Organic Farmer’s Proucer Company Limited, with the aim of providing market linkage to the indigenous organic produce of Dantewada. In 2018 these interventions were expanded in 124 villages of the district with the positive results of the pilot. The efforts were taken to create a comprehensive eco-system from seeds to the market that supports organic farming and indigenous crops. The special focus of the program was capacity building, institutional development of Farmer’s groups & Women SHGs in field of Organic farming, certification of organic farmers and creating market linkages for their produce by strengthening Bhoomgaadi.

Key milestones achived so far

Development of strong community cadre at village and cluster level trained in organic farming and sustainable agriculture .

Training and Capacity building on organic cultivation of indigenous crops, of the members of farmers’ groups and women SHGs from 124 villages of Dantewada, many from most remote and conflict ridden parts .

Blocks	Villages	Groups	Total Farmers	Women Farmers	ST Farmers
4	124	896	9683	5462	7843

<p>A cadre of 130 well trained youth and farmers working as resource persons</p>	<p>35% Average increase in productivity of paddy due to adoption of SRI and other methods</p>	<p>Bhoomgaadi, a collective of 3000 farmers linked to market Local-level value addition employing 20+ village youth and women with products going to more than 30+ cities in 14 states</p>
<p>2300+ Farmers adopted improved methods of cultivation</p>	<p>Revival of more than 40 traditional varieties Production and circulation of 211 quintals of organic desi seeds among the farmers</p>	<p>9600+ farmers from 896+ groups and 27,598 Ha land under organic certification Dantewada is the only district in C.G. with no sale and promotion of Chemical inputs is authorized</p>

It can be concluded that the Bhoomgadi Farmer Producer Company has improved the livelihoods of tribal farmers in Dantewada district.

Dr P.L Manohari
Deputy Director , MANAGE, Hyderabad



FARMERS' TRAINING SCHOOL: STEPPING STONE TO SUSTAINABLE LIVELIHOOD

Livelihood is defined as adequate stock and flow of food and cash with an individual or a family to meet their basic needs. Livelihood security means secured ownership of or access to resources and income earning activities including reserves and assets to offset risks, ease shocks and meet contingencies. Although we are celebrating Azadi ki Amrut Mahostav, despite continuous efforts by different Governments, poverty continues to impair the lives of a large section of population of our country. Though majority of families in rural sector derive their livelihood from agriculture sustainability becomes a challenge.

Routine things will not solve the age old problem of sustainable livelihood. Therefore few innovative things are being discussed in various forums now days. Few of them are noted below

1. Participative Approach : Involving Panchayats in Decision Making
2. Diversification and Intensification :Restructuring Extension and Adoptive Research Delivery
3. Holistic Integrated Approach (Productivity ,Marketing, Postharvest ,Agro processing, credit, rural infrastructure, research and natural resource management
4. Technology Development and Dissemination
5. Group Farming System Approach
6. Participatory Planning, Management and Monitoring
7. Creating ,Enabling Environment for Privatization and Commercialization
8. Farmers Self Help Group
9. Privatization of Services
10. Farm Polyclinic
11. Marketing Linkage
12. Concept of Bio Village
13. Concept of Seed Village
14. Enhancing knowledge through mass Media
15. Concept of Farmers' Training School

Out of the above 15 innovative things the last one seems very important as it takes care of many of many things noted above.

We will share a practical example tried by Paradeep Phosphates Limited (PPL) in collaboration with Government of Odisha by opening a Farmers' Training School in the State Capital Bhubaneswar

The theme designed for the Farmers' Training School is 'Productivity, Prosperity and Learning 'which is the other name for sustainable livelihood.

The basic concept of operating Farmers' Training School was in the following manner.

a)Farmers in a batch of 25 to 30 from a particular area will be selected to attend training. The basic idea of taking from a particular area is to concentrate their local problems and give proper knowledge to the group coming from a uniform background

b)The group of farmers come from their area by transport (train, bus or van depending upon the distance) which is provided by PPL

c)Their stay inside the Farmers' Training School Campus is arranged in the State Govt Building

d)The farmers stay for three days in the School .Their boarding expenses are borne by PPL

e)Training to the farmers are given by experts from various reputed Institutes like Odisha University of Agriculture and Technology, National Rice Research Institute ,Central Institute of Freshwater Aquaculture, Central Horticultural Research Institute , Centre for Women in Agriculture and other related specialized Institutes. The Professors give Power Point Presentation in the hall and solve the doubts of the farmers.

f) After two days of training the Farmers appear for a test and the best Farmer is felicitated

g) During their stay the Farmers are shown documentary films on agriculture related topics

h)On third day the farmers visit one or two Institutes to gain practical knowledge

i) Once the farmers leave the Farmers Training School , they are contacted by the staff of the Farmers Training School to help them to earn their livelihood .Proper follow up is made to help the farmers once they reach their village.

In the course of last 10 years (2011-2021) 379 training programs have been conducted in which 8348 farmers (7709 male and 639 female) from various parts of Odisha and from outside have visited Farmers' Training School and have been immensely benefited. In total in a span of 10 years the Farmers Training School has trained 9580 farmers. We have marked that the best impact has been noticed on the cultivation of vegetables, mushroom and vermin-compost as well as poultry, Fishery and Diary. Many farmers have also realized the importance of soil testing as PPL has been managing 30 Mobile Soil Testing Vans in all 30 districts of Odisha and also a static soil testing laboratory very near to Farmers' Training School. Few of the photographs of farmers will prove how proper training, motivation and follow up can change the lifestyle of farmers for a sustainable living.

Successful Livelihood through Agril-Farming

At the age of 14 years while studying in Class IX, the farmer named Sri Badagandharb Swain of village Chitapur, Block Kantapara in Cuttack decided to embrace agriculture as a full fledged profession. He has 1.5 acres of inherited rain fed land and raised paddy and blackgram/ greengram cultivation on it. He found it difficult to establish irrigation facilities by installing Diesel irrigation Pumpset from his scanty income. In addition, for further development availed loan from the Canara Bank.

After installing the irrigation Pumpset, started cultivation of different kinds of vegetables during the Rabi and summer seasons and fetched handsome income. He undertook extensive trainings from IMAGE, K.V.K and other Institutions for learning about modern agricultural practices. He avidly attended departmental training camps for growing various vegetables, pulses, oilseeds, sugarcane and cultivation of banana. Since then annual income keep on increasing and was capable to increase cultivated land area to 12acres by 1998 and has reached total 25 acres till now. My three sons also have joined with me in managing the farm.

Of the total land, 20 acres is being cultivated during the kharif season for paddy and 5 acres for vegetables cultivation. Besides, 13 acres of irrigated land is under Dalua paddy cultivation. The farm is totally irrigated with the help of 5 number of Borewell and 2 number of Lift irrigation points.. The farm implements include three Tractors, one Combined Harvester (for paddy) ,one Paddy Reaper, one Power Weeder for easy cultivation and five permanent laborers are engaged throughout the year for vegetable cultivation. Besides, 5 casual labors are engaged daily for 6 months during paddy cultivation. My farm is serving as demonstration for 52 households of my village. All the families are growing vegetables as cash crops for better livelihood.

The total gross income of the farm is about Rs 28 lakh rupees i.e. from cereal crop Rs.11.00 lakh, from pulses Rs.0.50 lakh, from oilseeds Rs.1.5 lakh and from the vegetables Rs.15.00. The cost of cultivation is estimated about Rs.10.00 lakh , resulting the net income of Rs.18.00 lakh in the year. The annual consumption needs also met from the farm.

The cow dung requirement for the cultivation is met from the five cows reared in the farm. The chemical fertilizers of urea, SSP and MOP are being used to increase the yield. Besides, micro-nutrients are used for the quality improvement of the products.

The major produce is sold at the farm gate like hot cakes and the balance harvest is sent to the Bhubaneswar market. The farm is a regular supplier of different types of vegetables to the Hotel MAY FAIR and other hotels at, Bhubaneswar.

There are regular visitors throughout the year to the farm from different institutions, villages and from different seed companies for on the spot observations. The departmental officers visit for supervision of my standing crop fields and facilitate financial support under various schemes. There is constant touch with all concerned agriculture, horticulture, dairy department officials of Cuttack district and at state head quarters, Bhubaneswar.

He he has been awarded prizes at different times by different organizations. Among them, the best Farmer award prize from the Hon'ble Chief Minister, Odisha on the auspicious occasion of AKSHYA TRITIYA, 2010.

Sri Chita Ranjan Sahoo

Asst Dir Horticulture

Deras farm centre for excellence

Mendhasal

Khurda

Livelihood and Agro-Enterprise Management

Sustainable livelihood depends upon effective AEM which focuses on irrigation "per drop, more crop", quality seeds, balanced soil health, investments in warehousing and cold chains and promotion of livestock, poultry, bee-keeping and fishery enterprises. The AEM aims to make the agriculture vibrant & smart with focus on 'enterprises'. The Agriculture Technology Management Agency started operating in districts of Khurda, Ganjam, Sambalapur and Koraput with objectives of group management- group structure and group function and resources management.

The group management is the 'foundation stone' of the AEM. The opportunity for small and marginal land holders to enhance their income depends on extent of their share in the market. The group is the means to gain bargaining power, both in input and output markets. These groups consist of potential beneficiaries having common interest in input procurement, credit accessibility, technology management, value addition and so on.

In the erstwhile system, due to lack of bargaining power, the small and marginal farmers incur high cost while procuring the agri-inputs. Further, the quality of the agri-inputs can be ensured when procured from licensed dealers by the group rather than from unqualified vendors. Other production resources like water, energy, farm machineries and so on can be effectively pooled and managed collectively. Similarly, there are many empirical evidences of credit and financial resources being accessed and managed effectively by group endeavours.

The production management component of AEM involves the activities relating to selection of appropriate technologies, its package of practice and adoption of timely operations. Of late, it has been realized that there are certain field operations which can be timely managed when carried out collectively. The accessibility to technologies, capacity building and certain community production operations like pest management, nutrient management, water management, and so on, can be undertaken collectively by the farmer groups. Furthermore, as a group, the small and marginal farmers enhance their 'uptake' capacity to adopt and pursue new technologies and enterprises that otherwise they are not able to follow as an individual farmer.

The network management is needed to establish organic linkage with whole range of stakeholder's viz. input agencies including credit, extension functionaries, research institutions, farmers' organizations and market players. It is recommended that farmer groups need to establish relationships viz. intra-group, inter-group, extra-group and supra-group relationships with different actors in agri-value chain so as to reap dividends that would accrue higher income. Thus, an effective relationship would help the farmers in amplifying and multiplying their agri-enterprises.

It is pertinent that smart agriculture needs to be demand-driven. It is observed that the farmers manage components of AEM very efficiently, but falter in market front. Due to small quantum and disaggregated production, lack of market information, poor infrastructure, poor bargaining capacity and high transaction cost bedevil income. The removal of trade barriers and increased competition has opened flexibility for farmers to choose buyers for their products and suppliers of key inputs. Different market-led initiatives viz. value addition, product differentiation, contract farming, marketing by farmer groups, brand promotion, and others would help in harvesting higher gain for the farmers.

It is found that adoption of AEM concept and approaches as an 'engine of growth of farmer's income. The bottom line of such interventions are to usher in a paradigm shift from production-focused agriculture to enterprise-focused agriculture with comprehensive attention to evolving farmer groups (supporting existing farmer Interest Groups, SHGs, farmer clubs, and others), resources/ agri-inputs pooling, technology management, collective production functions, organic linkage with chain actors, post-harvest management etc..

The Government of India has promulgated a new policy guideline for formation of farmer groups. that deal with business activities related to farm produce and works for the benefit of member producers. In recent past, 'one district-one commodity' focus has been identified as the 'converged approach' to support and aggregate the efforts.

Dr Sanat Misra

Senior Scientist

*Directorate of Planning, Monitoring & Evaluation
OUAT, Bhubaneswar*

A Successful Livelihood on Non-Cereal Farming

After graduation instead of searching for any job, I took up family occupation of agriculture in 3 acres of family land along with my father and younger brother. Before doing any planning I undertook extensive trainings in modern agriculture related to, integrated farming, improved methods of vegetable cultivation, pisciculture, apiary, mushroom cultivation, horticulture and gardening, organic farming at different times at IMAGE, OUAT, KVK Naygarh and other places. Even now I do not miss any training organized by department of Agriculture, IMAGE and OUAT. I decided to do farming without any institutional or non-institutional loans. Initially with small profit went on adding small acreage of lands and in the process now operating in total 10 acres of land. Regarding structure, all the land are upland and canal irrigated throughout the year and it contained two patches of land one and half acre each. Other plots are of half an acre each and of the total, 6 acres are exclusively devoted to non-cereal farming. Three acres of land is devoted for vegetable cultivation, one acre for sugarcane cultivation, two acres for fish cultivation, 0.5 acre for potato cultivation, the fish farm pond of about one acre is devoted for integrated farming. Besides, there are 4 numbers of F-2 varieties of milching cows, and 100 coconut trees. In integrated farming, there is one farm pond; there is mushroom cultivation, 100 pineapple plants, 100 mango trees, 100 poultry birds, 50 banana plants. The farming operation is going on with the help of farm implements consisting of one tractor, one power tiller, two pump sets, one harvester and other small farm implements. In the farm operations, 6-8 laborers are engaged throughout the year besides me there are two member of my family i.e. my father and brother.

The total gross income from all non-Cereal enterprises is about Rs 10 lakhs, of which cost of cultivation includes 2 lakhs, resulting net income of Rs 8 lakhs in the year. The consumption needs of the family are also met from the farm.

The returns from different enterprises are Rs 4.5 lakhs from vegetables, Rs, 1.50 lakh from sugarcane, Rs 1 lakh from pumpkin, Rs 3 lakhs from fish, and Rs 1 lakh from others. Besides, cowdung chemical fertilizer is also used in the farm and I am closely associated with Paradip Phosphate Fertilizer Company.

Marketing is not a problem, as both wholesalers and retailers make crowd at the farm gate to purchase the produce. There are regular visitors from other villages of the state and from other states to see the operation of the farm. I usually participate in all farm exhibitions in and outside state. The agribusiness students of OUAT and Utkal University make regular training visits to the farm regularly to observe farm activities. I keep constant touch with all concerned agriculture horticulture, fishery, dairy and livestock departments at Nayagarh and Bhubaneswar. Because of successful farming I have been awarded prizes at different times by different organizations which are mentioned below:

1. **2010, December 9-14**, being sponsored by the IFICO, received the, KISAN SAMAN award from the Dept. of horticulture, Government of Maharashtra at Pune.
2. **2012, April 26-29**, awarded the KRISHI KRUSHAK SAMAN by the state Govt. of Uttar Pradesh for Integrated farming
3. **2013, March 15-20**, received the GLOBAL AGRIL SAMIT SAMAN from the Govt. GUJARAT at Gandhi Nagar.
4. **2014, February 9-13**, received the KRUSHI BASANTI SAMAN at Nagpur by the Govt. of Maharashtra.
5. **2018, June, 29-30**, received the AGRI BIKAS SAMAN at SOA univ, Bhubaneswar from ICAR, GOVT of India
6. **2019, October, 26-28** received the KRISHI KUMBHA SAMAN AND PRAGATISILA KRUSHAK SAMAN at Sugarcane research center, Lucknow, from the PPL.
7. **2021, October, 26** received the CANE-OVATOR award at Sugarcane Breeding Research Institute, Coimbatore, and GOVT. of India

At the end, I urge all the Agribusiness and Agriculture students to take up farming as main occupation and utilize knowledge for successful entrepreneurs.

Pabitra Kumar Barad

Vill-Hariharpur, Block-Odanga, Dist.-Nayagarh, Odisha



How apple cultivation turns around the livelihood of Koraput farmer

Sarat Chandra Sahu a farmer of Koraput district took audacious step to grow apple in subtropical region. Sarat Chandra Sahu has been growing mangoes on eight acres of land in the district for last 20 years. In 2002 he planted an apple tree sapling. In 2007, the first fruit was harvested. The numbers of trees has since grown to 20 through the process of air layering.

He claimed that apples grow in his farm in remote village Marbaiguda under Iaxmipur block are sweeter than any other apple grown elsewhere in the country.

He said when he had an exposure visit of farmers to Bengaluru in 2002, the idea struck to his mind grown apple saplings in his farm. Then, that day he brought the saplings of an apple in his farm. Little he knew that apples are not suitable for subtropical climate of Koraput district but he took it as a risk to grow apple sapling in his own farm.

In this time, State Horticultural Department claims that Koraput climate is not suitable for growing apples. Hence, the department has stayed away from venturing into apple plantations and neither provided any sort of technical assistance to it.

Buoyed by success of his experiment, he now encourages others to grow apples as it requires low investment and brings good profit as trees bear fruits twice a year. In one season he got over a 10 quintal of apples from 10 trees. He realized that Koraput has a huge potential for apple cultivation because of low investment and the output is very good. He has also distributed many apple tree saplings to people in the locality through the process of air layering.

Officials, however, department maintain isolated reports of farmers growing apples and categorically stated that this fruit is not included in the list of crops under the National Horticulture Mission. A lot of official work has to be done for including this fruit in NHM as shared by Sankarshan Rout, DDH department.

Sankarshan Rout sir says, one can plant at least 194 saplings of apple trees on one acre of land with a gap of 15 meters between each sapling. After 3 years of plantations, the trees start bearing fruits. Each tree bears 15 to 20 kg of apples in this climatic condition.

He sells 1 kg of apple for Rs 90 to 100 in local market. He also sells saplings for Rs 100 each in his village and area closer to village. In this he gets the profit of 56,000 which is much higher than the previous crop he was growing in his farm.

He first targeted his village area and he headed to local as well as other districts of Odisha.

Initially he distributed his produce freely to the farmer of village. This encouraged other farmer to adopt apple in this district as it turned out to be a lucrative farming. After many years of endeavours the apple farming poised to gain popularity in the village. Mr. Sarat Chandra Sahu got financial support from private banks and also mobilized other farmer to join his apple growing missions. Eventually the apple farming becomes the profession in Koraput village.

After so many struggles, he succeeded in growing apple in subtropical climate of Koraput village and in 2020, he became popularized in whole Odisha for good quality apple production in subtropical climate and its marketing.

The govt. should frame special incentives policies for promoting apple growing farmers. Apart from this, e-marketing platform should be set up to provide fame and acceptance of Koraput apple to the other parts of country.

Ankita Behera

Student of CAM 2021-23

Entrepreneurs Day Event

Utkal centre for Innovation & Incubation Foundation organized a seminar to celebrate "World Entrepreneur day in association with Swabalambi Bharat Abhijan on 21st August 2022 at the BARC UU ORC. The main objective of this seminar is to motivate the students to embrace entrepreneurship as a challenging and lucrative career option. The seminar focused on the pivot role of facilitator in promoting the startup and drives from scratch to sustainable level. On this eve eminent personality from different business sphere were invited to address the students about the crucial role of ecosystem in creating congenial atmosphere for the growth of Start up.

The welcome address was delivered by Mr.Manoj Bal, Dy.CEO, UCIF. The first speaker was Sri Sambit Tripathy (CEO, Livelihood Alternative). He stressed on market linkage and its imperative role in running Startup successfully. He spoke about role of FPOs as catalysts in creating market linkage for the agri-produce by aiding institutional building among the farmer community. He said that strong market linkage provides quick upfront money to farmers. Mitigating intermediaries, promoting contract farming and aggregation through farm collective can bring radical changes in agriculture areas and above all it doubles the farmer incomes.

The next speaker was very young & ebullient Dr. Ramesh Chandra Biswal (founder & CEO of Villamart). His company works in the area of supply chain and procurement. He avouches that back end infrastructure is required for the smooth flow of agri-produce from farm gate to platter. The wastage of agri-produce can only be assuaged when the lead time became less and for this suffice infrastructure is required. For streamlining procurement process the market intelligence play very vital role eventually lead to cost optimization. He stressed that students should think seriously on setting up niche startup which rely on data analytics & IOT because it has an immense potential in future. Besides, Govt. provides subvention on these areas.

The third speaker was Sri Annada Sarkar (Zonal coordinator, Swabalambhi Bharat Abhijan). He averred on the importance of value addition in agriculture. The value addition provides not only provides handsome returns to farmers but also fetches demand for the company. He beautifully cited the example of cherry tomatoes & capsicum which are highly demanded in the market due to its taste and high nutritive value. Getting GI tag in particular agri commodities and then get processing not only generate export demand but provides employment to many youth.

The session ended with an open house discussion with the students. The participants enjoyed the sessions and get acquainted with much insightful information motivating them to go for their own venture. Entrepreneurs not only impinge economic prosperity in society but also bring social empowerment.



Address By The Special Secretary Agriculture, Odisha

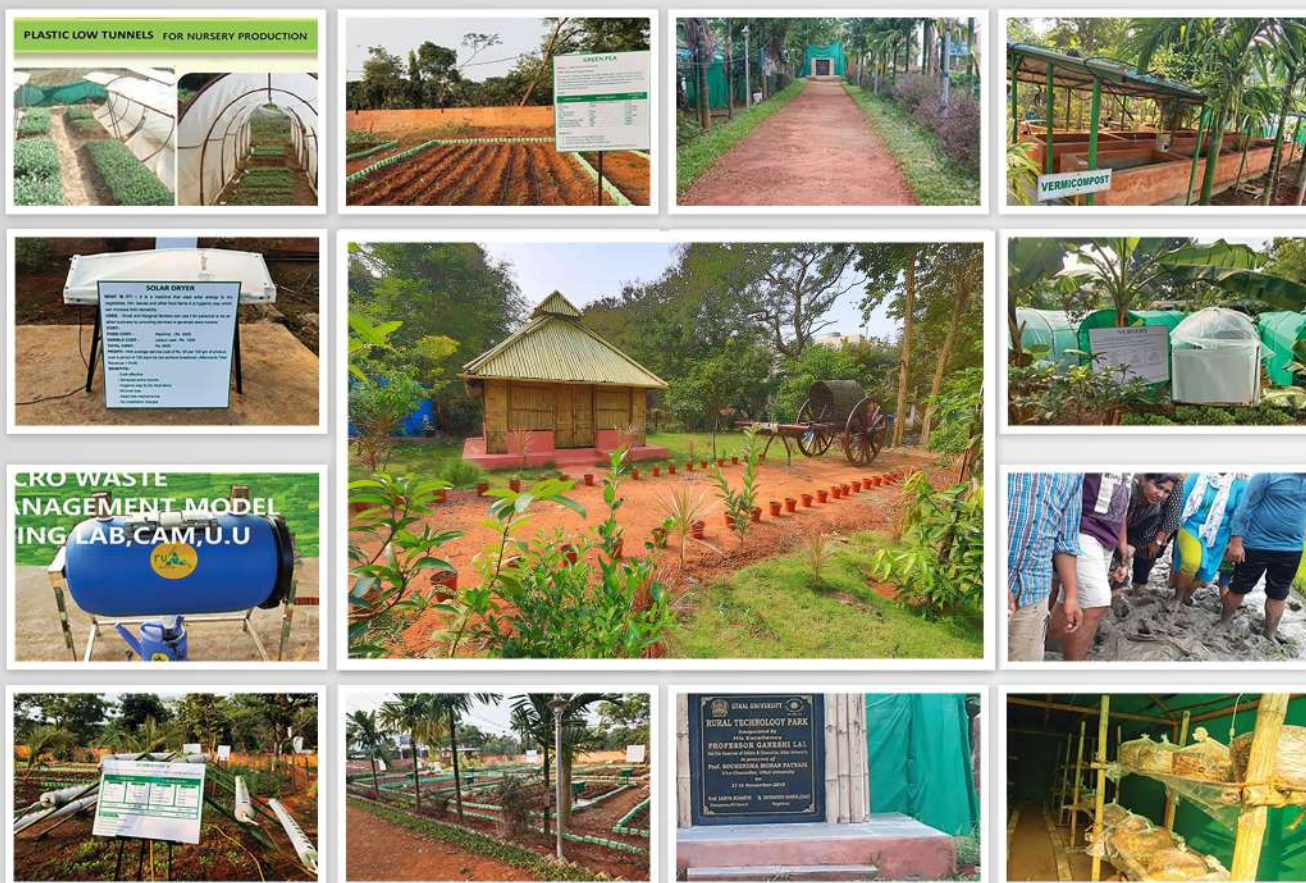


On invitation, S.J. Sanjeev Kumar Chadha, Special secretary Agriculture, Secretary, Cooperation and Director, Agril Marketing, Odisha addressed to the staff and students of Centre for Agri management Utkal university on 4/9/2022 at 11 am-1.30 pm, In his brief and valuable speech he focused on the challenges that the State confront on agriculture sector specifically on crop diversity and climate resilience agriculture. He discussed in detail “How various schemes & programmes are helping the farmers and other stakeholders, to overcome such crisis.” In support he cited many successful cases. He put before the students about the acceptance of G9 variety of banana by the farmers of Odisha, introduced from Israel which has superseded traditional variety of banana due to bumper yields i.e. 60-70 tones per acres. In his opinion, crop diversification is the pressing need in the state as along with increasing production it mitigates the farm risk. The farmers of Odisha are now adopting more and more crop diversification on initiative of the state Govt. Non paddy cultivation is now the only answer as significant increase in paddy cultivation has failed to increase income of the farmers. He urged the agribusiness students to play a major role at grass root level in this regard to convince the farmers to go for more and more non-paddy crops. He also added that there is now sufficient production of fruits and vegetables in Odisha, due to successful implementation of various schemes .in upland and tribal districts of the state. Also there has been an increase in floriculture cultivation in various districts specially in Ganjam district resulting less dependence on neighboring states i.e. Andhra Pradesh W.B. The Govt. of Odisha is now taking active steps to implement hub & spoke model in 20-25 RMCS. These RMCS not only regulate farm gates prices but also streamline the storage and distribution of farm produce. He elucidated that Odisha Govt. spent about 200 crores in enhancing the storage facilities for onion for price stabilisation. Suitable marketing and value addition will ensure fair price to the farmers. The agribusiness students have a major role to persuade the farmers to sell their produce at the marketing yards instead to middlemen and to take up adhoc micro level field studies on various marketing problems to help the Govt. to sort out issues for benefit of farmers. Apart from this he exhorted student to take up their own venture after the degree instead of searching for service. The Odisha Govt. is extending all types of financial and service supports to budding Agriprenuer. The young minds have the immense ability to change agriculture landscape of the State.

In conclusion, S.J. Chadha clarified many doubts and questions of the students.

Prof Benudhar Bhuyan
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LIVING LAB. IN R.T.P, UTKAL UNIVERSITY DEVELOPED BY CENTRE FOR AGRI-MANAGEMENT



AN ETHICAL INVENTIVENESS OF CENTRE FOR AGRI-MANAGEMENT, UTKAL UNIVERSITY

Centre for Agri-Management (CAM) offers a two-year Post Graduate Program in Agribusiness Management -MBA (Agribusiness) in Utkal University since 2006 with a consistent placement record and academic excellence. The CAM developed a Living Lab (learning & experimental platform) at the Utkal university campus as a live project hub, to guide students, SHG members, farmers and any interested person, to develop sustainable Agro-Enterprises involving Nursery, Mushroom cultivation, Duck-Fish integrated farming, Natural Farming, Vermin Compost, Bio Compost, Bee Keeping, Protective farming, Urban farming etc.

The CAM is planning to develop some campus garden with nutritional value in different Schools with the support of Government, public sectors and private sectors.

Pioneer By

Prof. Nishith Parida

Esteemed Member, Advisory Board



Next Topic - **Farmers Producer Organisation**

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