

Optimizing Asymmetries for Sustainability: A Case of Nava Jyoti Community Enterprise System in rural agricultural settings

<http://www.navajyoti.org>

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The context of the marginal and small farmers/producers in the Indian rural/tribal agricultural setting is highly complex. The complexities arise out of the various types of asymmetries in information, knowledge, skills, competences, resources, technologies, power, etc in the above settings. The industrial development model that has been pursued for long by the governments and the non governmental organizations in such realities has exhibited the growth paradox of high inequality. Both the present predominant theoretical underpinnings of firm growth models in the context of the reality of the small and marginal farmers/producers throw up great challenges towards developing sustainable community enterprise systems. The case of Nava Jyoti Community Enterprise System is a challenge to the existing theoretical arguments on sustainability as well as a demonstration of how to optimize the various institutional and organizational asymmetries to lead rural agricultural communities toward self reliant, food and nutritionally secured sustainable community systems.

Theoretical Context

We could idealize two types of paradigms viz., a world of **perfect market competition** and a world of **perfect community cooperation**. The reality of perfect market competition is that there is very high level of external competition with a little external cooperation and no much emphasis on internal competition or self perfection. The reality of perfect community cooperation could be one with high level of external cooperation and a very high level of internal competition towards achieving perfection of the self.

The above two paradigms of **Competition** and **Cooperation** are completely different from each other. The purpose, approach, principles, values, tools and techniques, and definitions and language of both these paradigms are at two extremes. For instance; the purpose under competition is *self* contrary to *community* under cooperation. The approach under competition is *top-down* contrary to *bottom-up* under cooperation. The principle of competition is to seek *efficiency* under competition contrary to *sustainability* under cooperation. The values if any under competition is to take from the externality and accumulate for self (clan value) contrary to love, service and sacrifice (universal value) under cooperation. The tools and techniques of competition include private property rights, contracts, money-capital & control, contrary to common property rights, trust, participation-democracy and social capital under cooperation. Similarly, the language and definitions of the two worlds are different. While economic rationality, market, globalization, etc drive the language in competition; moral values, social harmony, cultural vibrancy, and sustainability drive the language in cooperation.

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The enterprises in the human history, whether for profit organization or not for profit organizations, public sector enterprises, cooperatives and all forms of social enterprises; all would fall in between these two paradigms. Unfortunately, with increasing industrialization and globalization, most organizations and institutions of today are getting redesigned within the paradigm of external competition.

The reality of high levels of external competition has not shown sustainable results for the society. We see that the intensity of market competition has not enhanced the sustainable growth of the society; rather increased inequity across the industrially advancing countries. We might therefore aim to systematically build an optimal model or system that is more sustainable than the traditional enterprise model under the market economy of industrialization and globalization. The proposed sustainable community enterprise system is designed to systematically transit from one paradigm to another paradigm including the steps, path, processes, & routines to minimize the tensions of transition.

The case of Nava Jyoti is an experiment to find if an alternate model of enterprise design to the traditional industrial organization design is feasible and sustainable. This venture is based on the premise that traditional organizational designs are structured to control and to perpetuate control; factors that are possibly the seeds for the growing un-sustainability.

From the basic axiom of inherent asymmetries in nature and human behavior, the traditional industrial organization design reinforce un-sustainability over time. The six steps from the basic axiom of asymmetry to un-sustainability are; (1) Asymmetry is inherent in the nature, human beings, organizations, and institutions, (2) Traditional firm with its objective of profit and growth is designed with different asymmetry generating control variables like size, scope, resource, capital, technology, management, and ownership, (3) Each asymmetry generating control variable has direct relationship with other asymmetry generating control variables, (4) The asymmetry generating control variables, individually and jointly perpetuate asymmetries infinitely, (5) Perpetuation of asymmetries through the asymmetry generating variables of the Firm scale up the economic-social-environmental asymmetries in the society, and (6) Scaling up of asymmetries within the society forms the basis for overall un-sustainability (Nayak 2010; *Optimizing Asymmetries for Sustainability*).

While traditional control mechanism ensures efficiency, the case of Nava Jyoti is an experiment to search for the optimal positions of the asymmetry generating control variables in an enterprise; which could possibly be an alternative approach to achieving efficiency, effectiveness and sustainability. The case presents the simultaneous optimization of **size, scope, technology, management and ownership**. While it is understood that the optimal positions of control variables of a firm is likely to be different for different industries, this case focusses on sustainable enterprise system in a technologically divisible industry like agriculture (Nayak 2010; *Optimizing Asymmetries for Sustainability*).

Case Summary

The Case of Nava Jyoti Producer Company (PC) is a case of action research to develop a sustainable community enterprise system in a rural agricultural setting in a developing country context. It has been designed and structured to resolve the various asymmetries and vulnerabilities of resource poor small farmers/producers. The case highlights how the design variables of an enterprise could be optimized simultaneously for sustainability.

The operational strategy to put in place a sustainable community enterprise system is based on three key aspects viz., supply management (agricultural production and marketing), demand management (consumption needs of the farmer families) and credit management of the resource poor producers. The 'community enterprise system' has been designed taking into consideration a number of factors such as optimal size of membership, economies of scope or multi-cropping, integrated agriculture with low cost inputs, optimal scale of operation, appropriate technology of the producer community, community efficiency, ownership and management by the producers/farmer and operational inputs by professionals.

The cost for implementing the Nava Jyoti PC, as a model of sustainable community enterprise system in a cluster of villages with a population of about 5000 people in a rural agricultural setting in India is estimated to be about 57 Euros (3218 INR) per person for a period of 7 years.

Key Outputs of Nava Jyoti Model

1. Nava Jyoti has been registered as a Producer Company within a year of its inception. It's owners are about 500 small farmers who are also its producer-members. Nava Jyoti has a Bank Account with a transaction of about 1,000,000 INR (17,715 Euros) within a few months of starting its operation. This producer organization has begun to emerge as the community enterprise system of, by and for the resource poor producers of the cluster of about 40 villages.
2. Depending on the farm and non farm products, the income of farmers has increased by 45% to 90% within the first year of its marketing efforts. The details of income earned on different items during 2009-10 is provided in the website of Nava Jyoti: <http://www.ximb.ac.in/~navajyoti/index.htm>
3. The community enterprise has been successful in setting up value chains from production to marketing, of some major local produces viz., farm produce, forest produce, fruits & vegetables and livestock produce.
4. Nava Jyoti has within one year set up two offices locally viz., a registered community office and a marketing office.

Section 1: Description of the case

1.1. Context

The community of Nava Jyoti consists of people from around the Nava Jyoti Kendra, Nuagada Gram Panchayat (GP) in the district of Rayagada in Orissa. There are about 1000 families (roughly 5000 people) from Nuagada GP and its adjacent villages in Gulliguda GP, Tembaguda GP and Bhimpur

GP. Currently, about 500 families (roughly 2000 people) are registered as members/shareholders of the Nava Jyoti Producer Company Ltd. The profile of the community is as follows:

Population:

Scheduled Tribes: 85 %

Scheduled Caste: 12%

Coastal Migrants: 3 %

Occupation:

Farmers (Small & sub-marginal Farmers): 30-40%

Non Farmers (unable to support through land based activities: 60-70%

Level of Employment:

Average No. of days of Self Employment on Farm/Forest: 120 days

Average No. of days of NREGS: 21 days

Average No. of days of Unemployment/Hunger days: 224 days

The farmers/producers of this community are engaged in different types of agricultural production including forest and livestock produce. The community practices traditional farming which happens to be organic and integrated. However, with the popularity of modern agricultural practices that are introduced through the various Government schemes; many unsustainable technologies and practices are available as a choice in the community. This has not solved the problems of the small resource poor farmers. Even the various agriculture and credit extension services set up by the government has not reached these farmers. Migration of youth from these communities seeking jobs as urban and industrial labour and household workers in nearby towns and far off cities is on the rise. The paucity of people working on the farms is in turn showing signs of reduced food production and shortages in food supply.

Risk, Vulnerability and Safety Measures of Resource Poor Small Farmers/Producers

Today the marginal and small farmers are exposed to various risks due to four key factors, viz.,

- Sharp price rise in external agricultural inputs,
- Unpredictable weather fluctuations due to climate changes,
- Complex dynamics in the external market and terms of intermediaries,
- Rapid changes in the culture of agricultural communities including migration of people from agricultural activities and some government policies for the poor.

These four factors are also heavily influenced by the strong global forces of liberalization, privatization and globalization across the world. Unable to engage effectively with the above forces of change, many marginal and small farmers/producers are becoming poorer and vulnerable.

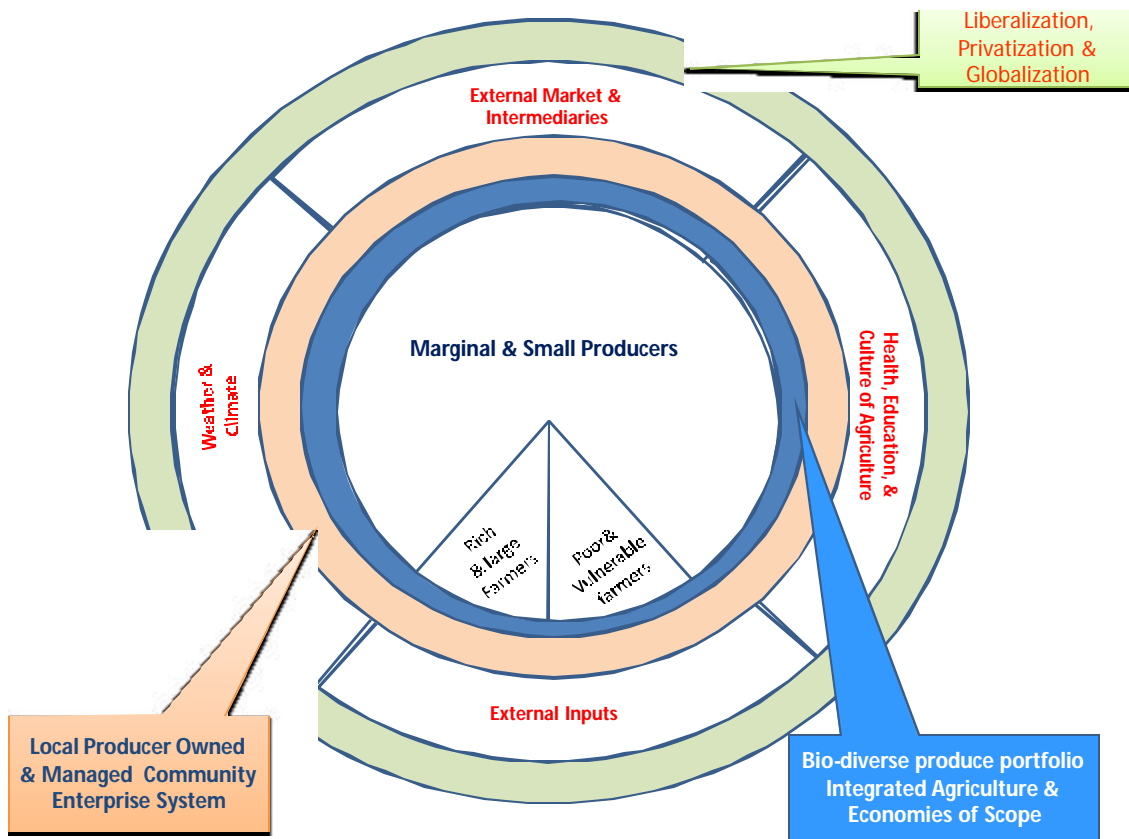
There are two factors that the farming communities have adopted to survive in the past: (a) integrated agriculture with diverse cropping patterns, (b) small, cohesive sustainable communities that are able to meet their needs at farm gate prices. However, both these protective measures have been weakened by the introduction of modern farming practices, commoditization of farm

produce, growing links to international trade and the emergence of new institutional arrangements.

Based on the need of bio-diversity for sustainability, this action research project adopts the economies of scope rather than economies of scale adopted by the commercial large enterprises. In other words, the Producer Company will enable the small farmers and producers to produce multiple items in agriculture, livestock, horticulture and forest produce and do primary value addition and other allied activities within their community and ecology. The economies of scope, rather than the economies of scale is appropriate for the small landholding, rain-fed, weather and season dependent agricultural production and allied activities of such smallholding farmers/producers.

Diversifying the product mix of the small farmers/producers is appropriate for meeting the nutritional requirements of their families' and their communities.' The absence of an appropriate local institutional arrangement deprives the small farmer/producer to realize better prices through selling in the highly competitive market. It was therefore imperative to create the second ring of protection by building a farmer lead local producer organization which could be registered as a Producer Company or a Producer Cooperative. **Figure 1** below presents the risks factors and the two rings of safety measures (a) diversified production by small farmers/producers and (b) producer organization as a local institution, to increase their collective negotiating power in the competitive market.

Figure 1: Risks, Vulnerability, & Safety Measures of Farmers/Producers



1.2. History and background

The two monsters of resource poor small and marginal farmers/producers in rural agricultural settings in India have been the *Monsoon* and the *Market*. Further, *rapid globalization* in the recent years has been modifying the *culture of agriculture* and pushing more small and marginal farmers into the vulnerable zone². Most importantly, with the gradual weakening of *local community institutions* and the absence of *local producer organization*, the sustainability of the resource poor farmers/producers and the likelihood of sustaining agricultural production appears to be impossible.

In the above context a Professor from the Xavier Institute of Management, Bhubaneswar engaged in Action Research to develop a sustainable community enterprise system³. He began to invest his own resources to initiate this endeavour and in due course the Sustainability Trust was founded by the professor with the active support of his wife. The community of the Order of Discalced Carmelites (OCD) had a monastery in the area and had been instrumental in getting the Professor and his wife to be interested in the community. They initially extended their hospitality and encouragement and gradually became active participants in the project. Subsequently, on submission of a research proposal by the professor, the National Bank for Agriculture and Rural Development (NABARD), Government of India granted 1.85 million INR (0.33 million Euros) to conduct an action research to develop a community based-paced-managed & owned enterprise system. Seeing the value of the action research to social development, the Director of XIMB permitted the professor to work without charging a consulting fee for the project. XIMB also extended the administrative support and storage facility. With the support of NABARD and XIMB, the work with the people in the community took a leap. Subsequently, a few more faculty members from XIMB and well-wishers from all around kept up the momentum of the work with the people of the community.

The main objective of the action research has been to develop a *sustainable integrated agriculture and rural development strategy* that would sustain the resource poor small and marginal farmers/producers in a developing country context like India. Developing the sustainable community model however, requires deep understanding of the *asymmetries* in the institutional arrangements within and outside the rural agricultural community. Most importantly, it requires *simultaneous optimization of design variables* in the community enterprise system for sustainability.

1.3. Life cycle

Stages towards developing a sustainable community enterprise system include

1. Market the surplus produce of the community.
2. Value addition to few selected produce with higher shelf life.

² Nayak, Amar KJR (2010). Globalization: A Framework for Perpetuation of Asymmetries, Vilakshan XIMB Journal of Management, September, 2010 (Forthcoming issue).

³ Nayak, Amar KJR. Optimizing Asymmetries for Sustainability, Seminars at the Planning Commission, Government of India, New Delhi (Jan 2009), Kobe University, Japan (July 2009), Osaka University (July 2009), XIM-Bhubaneswar (Oct, 2009), CAIM-PMU, MSAMB (2009, 2010), Global Conference on Agriculture for Development-FAO, France (Mar 2010), Global Conference on Shaping the Future, UIA, Mexico (April 2010).

3. Enhance productivity of agricultural & allied products through better input management.
4. Market & value addition of several agricultural, forest, horticulture, and livestock produce of the community & ecology.
5. Improve water and land management practices through a systematic ridge to valley analysis.
6. Integrate all agricultural and allied activities of the community for enhancing the value of farm and non farm labour throughout the 365 days of a year.
7. Operationalize a community enterprise system that is owned and managed by producer-members leading to sustainable improvement in the quality of life of the community.
8. Through systematic and continuous training and capacity building gradually hand over the complete charge of management and ownership to the producer members and the community over a period of 5 years that is during July 2009 to June 2014.

Stages & Process of Implementation

The first step to build a sustainable community enterprise system is to build the social infrastructure of the community. As the above process of social mobilization takes place, the other activities of hiring professionals, locating successful farmers in the area, putting in place the required funding, writing the plans and budgets in consultation with the community for meeting their needs are also undertaken. Building basic physical infrastructure and creating a provision for production and emergency credit are also necessary. Systematic mapping of strengths, weaknesses, needs and challenges of the community, mapping of resources, current engagement and sources of income of the farmer/producer families are undertaken as a baseline study. Based on these findings, listing of the produce/items to work with in consultation with the successful farmers and resource persons was undertaken. Subsequently, local youth are selected and trained on marketing, book keeping, low cost farming and production and on agricultural inputs/ practices as understudies to the resource persons and as apprentices to the professionals staffed in the community enterprise system. Please see **Table 1.0** on the activity plan and timeline for setting up the proposed community enterprise over a period of seven years.

Table 1: Activity & Time line to operationalize a Sustainable Community Enterprise System

	Activities	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
1	Identify the Community/Cluster Identify the cluster of villages / community / GP. Seek optimal size of farmer/producer members for greater participation with optimal geographic base for technical and commercial viability.							
2	Build Trust, Cooperation, and Community Spirit through Mobilization of people at the Village level & Cluster Level. Identify people as social glue that can develop the communitarian feelings among the people in the community. Identify village volunteers, potential community leaders, retired teachers, etc. for deeper engagements. Build awareness on the virtues of communitarian spirit for sustainability of the community. Share							

	<p>the idea of community identity and togetherness to solve the common problems of the community, whether community health, education, agricultural production, marketing, common resources or external resources. Share all issues and develop plans for the community through participation.</p> <p>Gradually build trust and cooperation among the small farmers/producers in the villages and the whole cluster/community.</p> <p>Share the idea of forming a single institutional platform at the cluster level or the CES for resolving the various production, value addition, marketing issues and for better net price realization for the labour of the producers.</p> <p>Create a platform for dialogue between different social groups and interest groups in the cluster/GP/community.</p>							
3	<p>Baseline Survey Producer-Family Mapping and Village Resource Mapping (Mapping the local farming, collection, Quality Assurance practices).</p>							
4	<p>Develop Local Organizational and Institutional Structures Seek membership/ownership by the farmer/producer members. Identify potential local people for professional on-the-job training for operating the Producer Organization. Identify the Facilitators, Directors, and volunteers and initiate, form and register the Producer Organization as a Producer Cooperative or as Producer Company. Develop the terms of reference for their engagements.</p>							
5	<p>Build Physical Infrastructure Meeting hall & Drying Yards for the farmers/producers at the village level. Village-level facility for tutorials for children and for community health</p> <p>Make the following provisions at the cluster/GP level: Small Office with basic record keeping facility. Storage facility of agricultural produce. Basic transport (1 pick-up van, 2 motorcycles, 1 cycle) Facility for value addition. Small Nursery & Seed Bank</p>							
6	<p>Facilitate Community Health and Primary Education Develop a network of midwives in every village and link them through the CES to a network of doctors for consultation and advice.</p>							

	<p>Converge with local government support for a mobile van, paying fuel expenses for catering for the health needs of the community.</p> <p>Network with doctors and pharmaceutical companies for medicine.</p> <p>Develop a holistic healthcare facility for the community.</p> <p>Identify qualified youth at village level to guide and teach children after school time in respective villages.</p> <p>Offer services for adult education through professionals of CES.</p>							
7	<p>Provide Micro-credit Security and Community Banking Services</p> <p>Provide credit for emergencies arising out of sickness, education, etc.</p> <p>Provide production credit for agricultural and allied activities.</p> <p>Provide limited credit as consumption credit as for child's wedding, festival, etc.</p> <p>Develop a community banking service. On behalf of the community, the CES can transact with the formal banking system.</p>							
8	<p>Create and Support Local Retail to cater for Local Consumption Needs</p> <p>Identify a family/SHG from each village to put up a village retail shop; wherever necessary.</p> <p>Provide financial credit to set up a retail shop in each village in the cluster, if necessary.</p> <p>Arrange for bulk supplies of items to the retail outlets established in the villages.</p>							
9	<p>Develop Sustainable Market Linkages</p> <p>Begin with marketing of the surplus produce. Select a mix of produce and not one produce. The selection will be based on economical volume and shelf life of the produce.</p> <p>Discover the price, intermediaries and the final set of buyers.</p> <p>Set up retail outlets in nearby towns and a marketing setup in the district/state capital.</p> <p>Create organized marketing platforms at the village and local weekly haats.</p> <p>Develop a calendar for sales through various exhibitions organized by the state departments and district administration.</p>							
10	<p>Tie-up for Working Capital</p> <p>Seek working capital from the government with lower rate of interest.</p> <p>Seek capital from the open market, banks, etc.</p>							
11	<p>Develop Value Chains for:</p> <p>Agricultural produce</p> <p>Horticultural produce</p> <p>Livestock/fisheries</p> <p>Forest produce</p> <p>Local art and craft products.</p>							

12	<p>Introduce low-cost integrated agricultural systems Integrated agricultural system adopting low-cost agricultural practices. Train farmers about on-farm inputs. Enhance farm biomass generation. Identify successful local farmers to train them to be the trainers/experts to the community of producers.</p>							
13	<p>Integrate Farm Activities with Other Economic Activities Integrate farm activities with the various non-farm and allied activities in the community to realize maximum value of labour.</p>							
14	<p>Converge Resources from the State and Central Government schemes for an integrated and holistic development</p> <p>Converge livelihood schemes like NRLM, IAP and MGNREGS at the cluster level and CES.</p> <p>Converge health and education programmes like NRHM and SSA to the CES.</p> <p>Improve the natural resources like forest, soil and water of the community by converging forest and watershed development at the cluster level and CES.</p> <p>Activate joint forest management practices and stop forest burning and excessive felling of trees.</p> <p>Converge the rural infrastructure such as road, bridges, electricity, public transport and telecommunication services at the cluster level.</p> <p>Activities of the various extension services of the government, PDS, horticulture, livestock, etc. can be converged at the CES for a cluster (GP).</p>							
15	<p>Withdrawal Process of the External Champion As the sustainable community enterprise system (Producer Organization) takes root in the community, the external champion needs to gradually withdraw from Year 5 and completely by Year 7.</p>							

1.4. Core business model

Structure and Design of Nava Jyoti Producer Company

The proposed Community Enterprise System is based on the understanding that sustainability of the resource poor small and marginal producers could be protected and strengthened through the two key rings of safety measures viz., (a) integrated low cost agriculture and diversified production (b) producer organization that serve as a local institution of, by, and for the small and marginal farmers/producers, but staffed by professionals including local men and women who would gradually take charge of the local producer institution or the community enterprise system. The professionals will systematically plan, budget, schedule, strategies and negotiate effectively in the open market for managing the 'cash to cash cycle' of the farmer/producer. It is to be noted that for the resource poor smallholder farmer/producer to be sustainable both the above two aspects have to be executed simultaneously. The detail of the sustainable community enterprise system that is under the early stages of operation is accessible at <http://www.ximb.ac.in/~navajyoti/index.htm>

The operations and activities of the proposed sustainable community enterprise system (PC) are around the following aspects, viz.,

- (1) Build the socio-cultural identity and infrastructure of trust and cooperation among the farmers/producers in the community,
- (2) Develop a sense of ownership and responsibility by continuously participating in the decisions and operations of the community enterprise system,
- (3) Optimally and gradually intervene to relieve the resource poor small and marginal farmers/producer from the clutches of the local and traditional local institutional arrangement for supply of external/ basic items of consumption and credit against the co-lateral of the harvest, land and or jewellery, etc.
- (4) Nava Jyoti PC to provide the basic physical infrastructure for the operations of the community enterprise system and to gradually stabilize the various operations of the PC.
- (5) Put in place a set of professionals in the community enterprise system who will not only be responsible to stabilize the operations but also develop the capacity of local youth through on-job training and on successful farmer fields to systematically transact the business of the enterprise system and provide the extension services required by the members,
- (6) Identify innovative farmers who practice integrated and holistic agriculture with low cost on-farm inputs. Systematically develop and contract them to widely replicate their model, using their farms for demonstration of their practices to other willing small and marginal farmers to change,
- (7) Systematically integrate agriculture with local livestock, fisheries, horticulture, forest produce, and other allied activities in the activities of the small and marginal farmers, and
- (8) Contract and engage the local community to protect the local natural resources of land, forest and water bodies and support farmers to undertake in-situ water conservation practices and to build micro-watershed projects in the community, and converge the schemes/programmes of the local government as well as from the various development agencies.

The basic structure and design variables of the proposed community enterprise system are illustrated in **Figure 2** at the end of this section. The design essentially approaches the issues of sustainability from the community perspective and the capabilities of the people in the community. Sustaining and improving the quality of life of family of the small and marginal farmer/producer is

the main purpose of the proposed system. A community of about 1000 farmer/producer families in the cluster consisting of about 40 villages with its natural endowments and the ecology is the basic unit of operation in the proposed community enterprise system.

The Nava Jyoti PC, community enterprise system converges all the activities relating to:

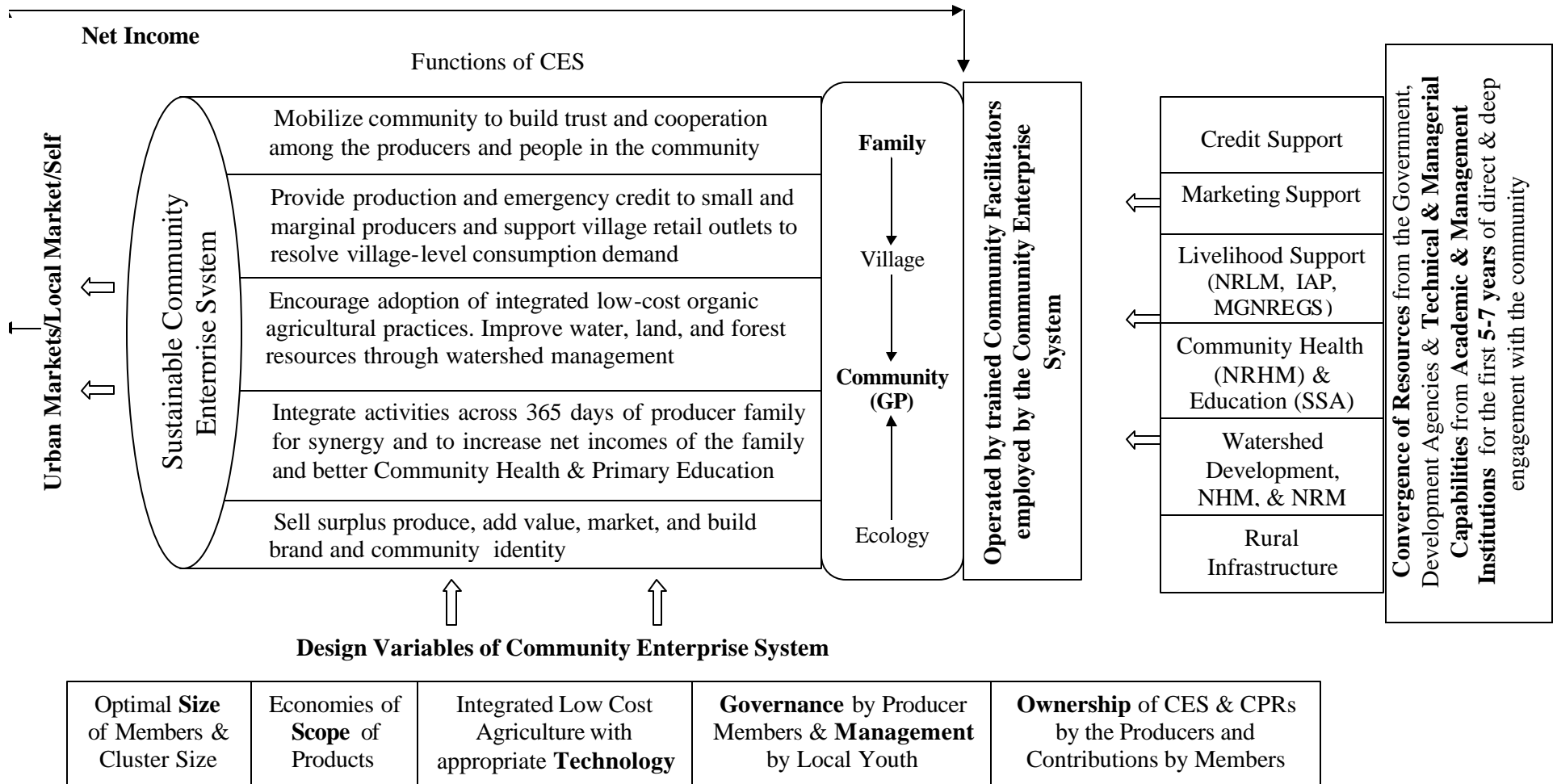
- (a) Build awareness about the objectives of the enterprise system and mobilize the farmers/producers and the community on community values, discipline, and build trust and cooperation among themselves to jointly plan and produce all that they can, to meet their nutrition, health and food needs. The surplus produce (items) of the community is then marketed by the PC.
- (b) Minimize the dependence of the small and marginal farmers/producer on the local merchants/traders for the basic items of daily consumption and the emergency credit by creating alternate financial arrangements to meet these critical needs of the small and marginal farmers/producers members and where possible the community,
- (c) Create required common facilities for storage and to undertake secondary value addition and optimize shelf life as per buyer's needs and market surplus produce when prices peak.
- (d) Integrate local agriculture systems with livestock, fisheries, horticulture, forest produce, medicinal, aromatic and dye plants along with other allied activities in the given ecological settings of the community and at the same time produce inputs on farm as far as possible and subsequently improve the water, land and forest resources,
- (e) Plan, schedule, budget and strategize to increase the net income and farm production of the small and marginal farmers/producers in as many days of the 365 days in the year,
- (f) Train the local youth under successful farmers in the area and on job by the professionals staffing the PC to upgrade the skills, inculcate discipline to work systematically before they take up the responsibility to operate the enterprise system on their own.

The key variables on which the proposed community enterprise system is designed are viz.,

- Optimal size of the community based on geography, topography, transport and communication facilities in the community
- Economies of scope based on the science of biodiversity for long term sustainability and commercially viable turnover,
- Ownership by the actual producers with each having equal voting rights
- Management of the community enterprise is by the professionals including the local youth of the community
- Adopt appropriate technologies by the farmers/producers,
- Generate local-internal resources, capital and converge resources, and
- Seek community efficiency and not mere enterprise efficiency.

The seasonal additional income (profits) from the sale and marketing of the products is shared proportionately among the farmers/producers based on the contributions of producers. The amount to be shared by the producers, incentives to be given to the volunteers and directors is discussed by the board of directors and external advisory board and then presented to the general body of the members/owners. On approval of the Board and the General Body of members/owners the additional incomes and incentives are distributed.

Figure 2: Design, Functions, Resources, Markets and Management of CES



1.5. Institutional/governance structure

1. The families in the community who produce some agriculture, forest, horticulture or livestock are eligible to become producer members/ shareholders/ owners of the company.
2. All producer-members have only one vote and hence have equal power in management decision on price, policy & profit sharing etc.
3. The local people including the local youth are to become volunteers/ community workers/ facilitators/ employees of the community enterprise system.
4. The community enterprise system is operated by the professionals including the local youth selected by the community and gradually trained on the job by few professionals from outside.
5. The organization structure of the Nava Jyoti community enterprise systems is shown in Figure 3.

1.6. External relations

The three key patrons for executing the community enterprise model have been the National Bank for Agriculture and Rural Development (NABARD) of the Government of India, Xavier Institute of Management-Bhubaneswar and Sustainability Trust.

The National Bank for Agriculture and Rural Development (NABARD) has been at the forefront of this project. The officials in the Regional Office, Bhubaneswar and at the Head Office, Mumbai have taken immense interest in the above action research, right from the proposal stage to its approval, and subsequent stages in facilitating the action research for developing a sustainable community enterprise system for its success. The financial support of NABARD has indeed been timely. The financial support helped put professionals, facilitators, and community level workers to undertake systematic organization of the community, data collection, training and capacity building at different levels of value chain of the local produce of the producer members.

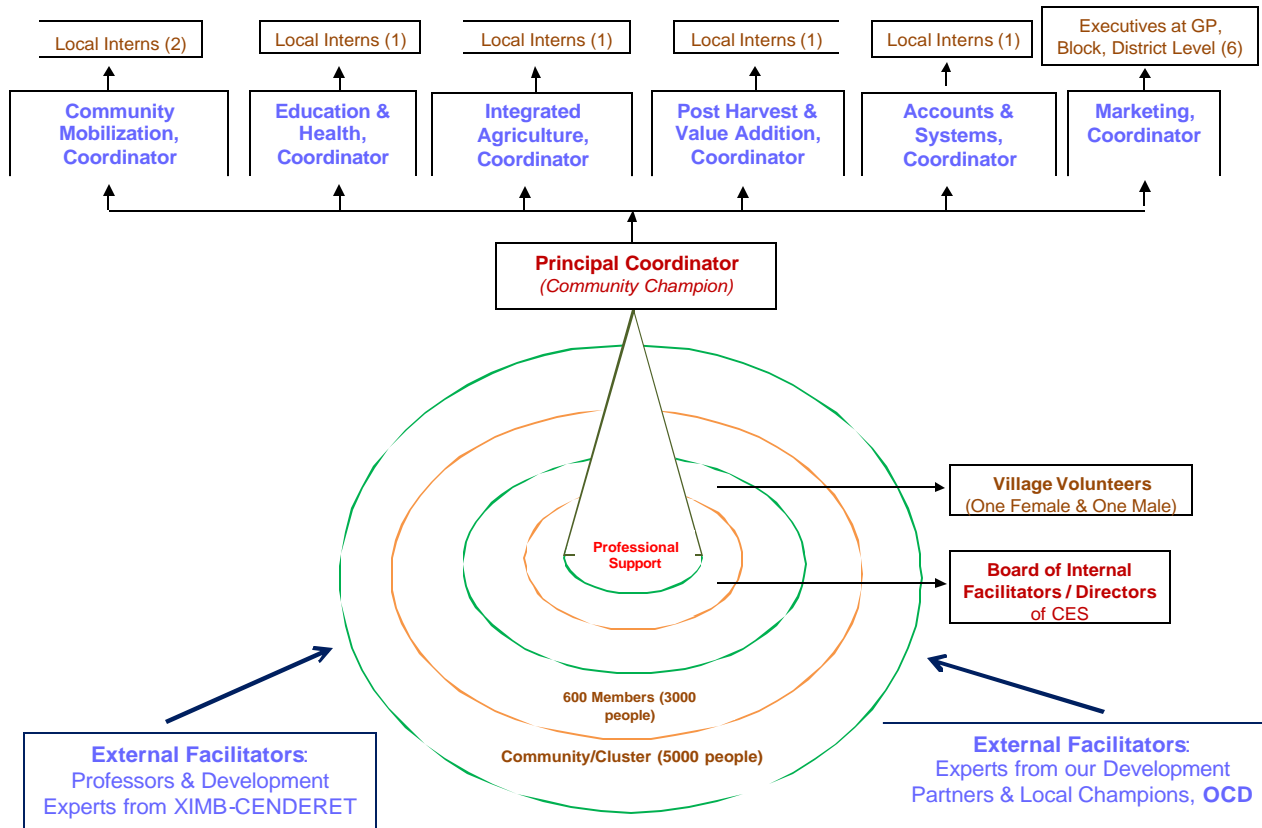
Xavier Institute of Management is the key patron of this Action Research to develop a sustainable community enterprise system. The above enterprise system was conceptualized in XIMB and the management of XIMB has supported the idea since the beginning. Currently, about five Professors are actively involved and many others are indirectly involved in this community enterprise system action research.

With the initiative of the Trust members, the preliminary action research in the Nuagada G.P. began in the year 2005. The core value of the Sustainability Trust is to develop a model of giving through the process of emptying oneself of ideas and breaking oneself for others.

Orissa Rural Development Marketing Society, Tribal Development Cooperative Corporation of Orissa Ltd., Integrated Tribal Development Authority, Rayagada District and Member of Parliament Fund have additionally supported in different ways to implement the model.

Moreover, a large number of people associated with the above organization and people outside these organizations have given their hand to advance the cause of sustainability. The officials from the various government departments at the state level, district level, and block level have been supporting the work. The kind patronage and support from the customers have also greatly helped the development of the model.

Figure 3: Organizational Structure of CES



1.7. Economic data

Nava Jyoti has been registered as a Producer Company in the name of about 500 small farmer/producer-members within Year 1. Nava Jyoti has a Bank Account with a transaction of about 1,000,000 INR (17,715 Euros) within less than a year. Depending on the farm and non farm products, the income of farmers has increased from about 45% to 90% for different products within the first year of its marketing efforts. The details of income earned on different items during 2009-10 is provided in the website of Nava Jyoti: <http://www.ximb.ac.in/~navajyoti/index.htm>

The community enterprise has set up value chains from production to marketing of some major local produces viz., farm produce, forest produce, local fruits & vegetables, and local livestock produce.

As of now the expenses incurred to develop the community enterprise model are as follows: Fixed Investments: 1,000,000 INR (17,715 Euros), Working Capital: 750,000 INR (13,286 Euros), Administrative & Operational Expenses: 750,000 INR (13,286 Euros).

There are 5 Directors, 13 professionals including local youth as interns, 27 volunteers from among the farmers/producers and about five Professors/experts of Management who provide their expertise whenever required.

1.8. Policy environment

The Nava Jyoti community enterprise system is a registered Producer Company in the Registrar of Companies, Cuttack, Orissa as per section IX A of the Companies Act, 1956 of the Government of India. About 500 members are the shareholders of the Producer Company. It has five Directors, 7 professionals including selected local youth to manage the business of the community enterprise system. It has completed the registration of the community enterprise system as Nava Jyoti Producer Company to operate as a legal entity as per the law of the land.

Section 2: Analysis of the case

2.1. Impact analysis

This producer organization is beginning to serve as the community enterprise system of, by and for the farmers/producers of the cluster of villages. Additional Income of the company is proportionately shared among the producer-members at the end of every season. Collection, sale and distribution of additional income of the produce/products shall be in 3 steps, viz;

Level 1: Base price paid to producer member at the time of collation of produce.
Level 2: Final price of the produce is the sale price of the produce in the market.
Level 3: Additional Income (Final Price less marketing expenses & base price) will be distributed among the contributing producer-members every three months. The details of income earned on different items during 2009-10 is provided in the website of Nava Jyoti: <http://www.ximb.ac.in/~navajyoti/index.htm>

The incomes of the members have increased by about 45% - 90% on different products within the first year. It has also removed the distress sale of produce by the farmers/producers to the local/migrant traders. The number of membership/ownership has also increased to over 500. People from the marginalized groups have come forward to support the formation and be part of the community enterprise system.

The community of farmers/producers meet once every month and share the progress and concerns of the centerprise system. There has been a sense of belongingness, self esteem, and identity with the growing strength of the community enterprise system. There has been an increase in the trust and cooperation among the members in the community. The local administration at the block level and the district level have shown a lot of support to operationalize the community enterprise system.

2.2. Lessons learnt and replicability

Simultaneous optimization of all the design variables (size, scope, technology, capital, ownership and management) of an enterprise system is fundamental to sustainable community enterprise system. **Figure 2** shows the basic model that can be replicated in different resource poor small and marginal farmers/producers of the community.

Sustainability of a system rests on building a system around the weaker groups in the system. The foundation for success of such a community model is the level of trust and cooperation among the people within the community. Further, the implementation strategy is to be gradual and largely community driven and the stages of implementation are indicated in **Table 2**.

The case of Nava Jyoti is in a process of evolution and would stabilize over the next two years. The success of translating the concept on the ground has led many states and organizations in and outside India, especially in the developing countries to take a serious look into the model in order to replicate the model in the future.

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