International Review of Sociology: Revue Internationale de Sociologie
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/cirs20

Logic, language, and values of co-operation versus competition in the context of recreating sustainable community systems

Amar K.J.R. Nayak[a]
[a] Xavier Institute of Management, Bhubaneswar, India
Published online: 24 Mar 2014.

To cite this article: Amar K.J.R. Nayak (2014): Logic, language, and values of co-operation versus competition in the context of recreating sustainable community systems, International Review of Sociology: Revue Internationale de Sociologie, DOI: 10.1080/03906701.2014.894342

To link to this article: http://dx.doi.org/10.1080/03906701.2014.894342

International Review of Sociology—Revue Internationale de Sociologie, 2014
http://dx.doi.org/10.1080/03906701.2014.894342

Logic, language, and values of co-operation versus competition in the context of recreating sustainable community systems

Amar K.J.R. Nayak*

Xavier Institute of Management, Bhubaneswar, India

(*Received 9 May 2013; accepted 29 December 2013*)

The article highlights the paradox in the language, logic, and values of the larger social system vis-à-vis the market economy system. It observes that the language, logic, and values of co-operation have gradually undergone transformation over time and have been mainstreamed today to that of industrial production and organizations in a competitive market economic system. The article argues that the confusions and tensions today in the theory, practice, and policy for recreating sustainable systems essentially arise out of a lack of conceptual clarity and an inability to distinguish the values, logic, and language of competition from that of co-operation. Based on an action research project during 2008–2013 on developing transitional strategies for rebuilding a sustainable community system from within the existing competitive market economy system, the paper provides a way forward for restructuring the organizational design and institutional architecture on the principles of deep relationships, trust, and co-operation for long-term sustainability.

Keywords: language; logic; values; competition; co-operation; sustainability

Theoretical context

On the one hand, the reality of perfect market competition involves a very high level of external competition with little external co-operation. It does not emphasize internal competition or self-perfection. On the other hand, the reality of perfect community co-operation requires a high level of external co-operation. It also exhibits a very high level of internal competition towards achieving perfection of the self. The above two paradigms of *competition* and *co-operation* are distinctly different from each other and are also like the two sides of the same coin. The basic logic of greater performance, application of technology, organizational design criteria, and overall approach in policy under these different paradigms apparently are on the two extremes of the same spectrum. Hence the values of the two paradigms are contrary to each other. Accordingly the tools and indicators of measurements are different. All these differences and contradictions in the basic logic and values of the two paradigms express themselves in two different language systems. Careful discernment of the language, logic, and values of the two paradigms is indeed critical to find transition strategies for sustainability.

For instance, the logic of competition is to seek *efficiency* under competition in a market economy, contrary to seeking *sustainability* under co-operation. Indeed, each of the terminologies is distinctly linked to a specific paradigm. The terms *efficiency* and

*Email: amar@ximb.ac.in

sustainability can be analysed a little more closely to appreciate how each has deep roots in different paradigms.

Efficiency has been central to the existence of firms/organizations in market-based competition (Williamson 1985). Similarly, *sustainability*, from the triple bottom approach (WCED/World Commission on Environment and Development 1987), has increasingly been argued as the basis of our future survival. There is little clarity on how the two are different, and hence many consider that sustainability can be achieved by increasing the efficiency of individual organizations or firms. A review of the characteristics of efficiency and sustainability in terms of space, time, context, objective function, and values shows that the two have different connotations. Efficiency is only a necessary condition but not a sufficient condition for sustainability (Nayak 2011c). Table 1 provides the distinctions among efficiency, effectiveness, and sustainability from five dimensions of space, time, context, objective function, and values.

It is indeed very interesting to note that while efficiency may be a necessary condition, it is not a sufficient condition for sustainability. Further, while WCED (1987) provides a good structural condition for sustainability, the frequency of interactions and positive feedback from these interactions leading to trust, co-operation, and deeper relationships among the actors and actants in a micro-ecosystem meet the condition for sufficiency.

Moreover, the means of efficiency at the secondary level or industrial production appears to be different from that of primary-level or agricultural production. While *economies of scale* improve efficiency in industrial production, *economies of scope* enhance efficiency and sustainability in agriculture (Nayak 2013a, 2013c). Scale-based industrial production, though it may be efficient in the short and medium term, appears to be unsustainable over a business cycle as has been observed during the last three centuries of industrial revolution (Nayak 2013b).

However, in practice across sectors, whether in primary, secondary, or tertiary sectors, scale-based efficiency seeking has been in policy and practice. The principle of economies of scale and intensive external input, which may show efficiency in the short and medium term, have been adopted in the primary sector of agriculture across the world.

Interestingly, the variables for the three key dimensions, namely external inputs, agricultural processes, and organizational processes, under intensive external input agriculture are contrary to those of low external input-based ecological agriculture. While the first adopts costly external industrial inputs like fertilizers, chemicals, pesticides, genetically modified seeds, the second uses local seeds and locally available biomass for enriching the soil health. Similarly, while the first adopts mono-cropping and using large machinery, etc. in agriculture, the second leverages the natural conditions by adopting multiple cropping, integrating for economies of scope, and using simple machinery. The organizational design and processes are accordingly different for the two approaches. Table 2 shows the distinctions in the variables under the two different approaches.

The long-term performance of the intensive external input-based agriculture is proving to be unsustainable, whereas the low external input-based ecological agriculture has been emerging to be the sustainable agriculture. Further, the practice of mixing the two approaches in the technologies and processes only yields sub-optimal results (Nayak, 2012a, 2012c). It is unfortunate that there has been a lack of conceptual clarity on the nature of technology that is efficient for the small-holder farmers who constitute over 65% of farmers globally and as much as 75% in India.

Table 1. Characteristics of efficiency, effectiveness, and sustainability.

	Space	Time	Context	Objective function	Value base
Efficiency	• Point of space	• Point of time	–	• Neutral to objective	• Tight control • Output-oriented
Effectiveness	• A body of space (firm or individual)	• A frame of time	• Closed system • Relatively homogeneous	• With regard to objective of the body or organization	• Tight control • Outcomes for specific actor(s), institution(s), or organization(s) • Contract: give and take
Sustainability	• Large extent of space with many stakeholders (spread over an ecosystem)	• Over a longer span of time	• Open system • Natural/diversified • Relatively heterogeneous	• To balance and optimize the multiple objectives of various entities of the ecosystem	• Freedom with self-control • Strengthen the weakest in the system • Holistic (inclusiveness and integration) • Humility, respect for others, tolerance to heterogeneity, and equality • Norms: give, service, love, and sacrifice

Source: Nayak (2011c).

Table 2. Paradigms of agricultural technology.

Intensive external input-based agriculture	Agricultural technology	Low external input-based ecological agriculture
	External inputs	
GM seeds	Seed	Local seeds
Inorganic fertilizers	Plant nutrition	Organic manure, plant biomass
Inorganic pesticides	Plant protection	Organic pesticides
More water	Water	Less water (moisture)
Biologically poor soil	Soil	Biologically rich soil
	Agricultural processes	
Mono-crop for commercial purpose	Cropping pattern	Multiple and diverse cropping to leverage seasonality for better food and nutrition security, and better soil health
Specialized mono-crop cultivation with little integration with other farm production	Level of farm integration	High degree of integration of farm crops with horticulture, agro-forestry, and livestock to leverage higher economies of scope in nature
Regular tilling with tractor, power tiller, etc.	Land preparation methods	Less tilling for minimal soil disturbance
High water intensity methods using canal irrigation, deep bore wells	Water management methods	*In-situ* water conservation methods
High degree of weed management	Weed management methods	Little weed management through mulching and mechanical weeding
High technology equipment like combine harvester, etc.	Harvesting methods	Generally, simpler technologies because of smaller farm size
Highly mechanized post-harvest management	Post-harvest technologies	Simpler post-harvest techniques
Large-scale, technology-intensive machinery	Processing technologies	Simple decentralized processing system
Large-scale storage and transportation	Storage and transportation methods	Smaller storage facilities with minimal transportation
	Organizational processes	
Traditional industrial organization design	Organizational design	Sustainable community organization design
Centralized, hierarchical, highly qualified external managers	Management process	Decentralized, simple, local rural youth as managers
Market boundary for products is unlimited and aimed at global commodity markets	Market space	Direct marketing limited to a radius of 300 km from production location

Source: Nayak (2012a).

Organizational design

There has also been a growing trend for mainstreaming of industrial organizational design to other domains like community organizational design in rural, agricultural settings. The dimensions of size, scope, technology, ownership, and management in the context of industrial organization and community organization would indeed be different. On the

one hand, industrial organization that primarily seeks efficiency would be large in size, fewer in scope, high in technology, limited in ownership, and managed by a hierarchy of managers. On the other hand, sustainable community organization would seek simultaneous optimal positions in each of these variables. Size will tend to be smaller, scope will tend to be greater, technology will be appropriate for local community, ownership will be wider, and management will be flatter and operated by the local community (Nayak 2009, 2012b, 2012c). See Table 3 as an illustration in the design variations for different types of context and purpose.

At present, while the small community organizations like the self-help groups, common interest groups, farmers clubs, etc. are technically not viable, the large industrial corporations are practically unsustainable from the socio-economic–environmental perspective. However, sustainable design variables lie somewhere in between the spectrum of each of the above design variables, namely size, scope, technology, management, and ownership. Further, it is critical to appreciate that the optimal design variables need to be optimized simultaneously.

Approaches in policy and governance

The approaches in policy-making in terms of orientation, governance principles, management methods, research/innovation methods, and indicators/measurement units could be different for competitive market economy settings from that of co-operative social economy settings.

However, there has been a mixing of these parameters in the policy-making and implementation in India and most other countries. The lack of conceptual clarity at the theoretical level has affected the policy-making. The mixing of concepts in the theoretical understanding and policy-making has led to a loose usage of terms within the civil society and general discussions in the subject of inclusive development. Further, the deep path dependencies in institutional processes have been adding to confusions and dilemmas in policy-making.

For instance, while the farmers in their respective fields drive effective agricultural research, the policy and practice of research has been top-down. Similarly, while the governance principle as per the constitution of India is for decentralized planning, the actual governance is based on centralized planning and budgeting. This is also the case in many other countries. Accordingly, the management methods for execution are highly

Table 3. Direction and position of organizational design variables for different contexts and purposes.

Small community organizations		Design variables		Large industrial corporations
Small	←	Size	→	Large
Multiple	←	Scope	→	Fewer
Low	←	Technology	→	High
Common	←	Ownership	→	Individual
Simpler	←	Management	→	Complex

Source: Nayak (2009).

hierarchical and bureaucratic in order to fit to centralized planning and implementation. Similarly, research and innovations are accordingly oriented to fit the centralized structures. For example, research is largely reductionist vis-à-vis holistic. Scaling up is the concern of the scientists and management experts vis-à-vis replication of good practices.

Further, the units of measurement for performance assessment are based on central tendencies measured at aggregate and macro level, while the objective remains the well-being at the individual and small community levels. GDP continues to assess well-being. External input to soil is used to assess agricultural productivity vis-à-vis soil health, which is the key to agricultural productivity. Please see Table 4 for approaches and policies under different paradigms in the context of agriculture and rural development.

Logic, language, and values under different paradigms

The inability to distinguish these differences at various levels has created confusion across diverse subjects including economics, policy research, management, and development practices. This has further confused the fields of study, research, and teaching in the respective domains. As a result, the content including the concepts, pedagogy, vocabulary, logic, and value base of management has gradually got transformed over time to a point where it is at cross-purposes to long-term sustainability of our systems. Let us assess one of the key terminologies in modern economics, i.e. economies of scale.

In the last 300 years of industrial revolution, the theory and practice of 'economies of scale' have greatly snowballed. Scale has been the basis of efficiency and growth for industrial production. Accordingly the industrial enterprises and their shareholders in the secondary and tertiary economic activities across the globe have grown and prospered. Further, to fit the scale-based production in the secondary and tertiary sectors, production in the primary sector, namely agriculture, has also been gradually pushed to adopt economies of scale. Across time and across geographies, the economists, bureaucrats, governments, and legislators have tried to resolve the problems of inefficiency in industry and economy through scale and technology.

Since the time of Adam Smith (1776), the idea of scale through greater specialization and division of labour has emerged. Scale-based production has gradually led to market expansion and globalization of enterprises over the last 200 years. Multinational enterprises were a natural product of these processes. To enable scale-based production compatible with other design variables, multinational enterprises were designed for large size, high-end technology, hierarchical management, control by fewer owners, and expansion to enterprises in global markets.

These measures have created greater tension across the primary, secondary, and tertiary sectors, as these measures of growth through industrial corporations do not seem to be compatible across different sectors, contexts, and various stakeholders. The business cycles during the last 300 years have been the expression of these incompatibilities. With greater globalization through liberalization and privatization, the occurrence of business cycles has been more frequent and more severe. Indeed, the different logics and methods adopted under the paradigm of competition have led to greater market warfare, social unrest, economic recession, climate changes, and impending global food crisis. Marx (1927), Kondratiev (1921), Vernon (1971, 1977, 2009), Schumacher (1973), North (1984), Schumpeter (1943), and Nayak (2008, 2011a) have highlighted these issues time and again. Scale, one of the design principles for growth, the cause of asymmetry

Table 4. Approaches and policies under different paradigms of competition and co-operation.

Approaches	Competitive and industrial market economy system	Co-operative and socio-cultural ecosystem
1. *Orientation*	• Agricultural research driven by the global players/agents • Top-down approach	• Agricultural research to be driven by the requirements of the small-holder farmer/producer • Bottom-up approach
2. *Governance principles*	• Centralization • National, regional, globallevel outputs	• Decentralization • Small producer family and community/cluster level outputs
3. *Management methods*	• Capacity building of institutions at the national, regional, and global level • Investment decisions driven by the needs of the global/national systems • Partnerships of scientists, organizations, institutions based on familiarity with global/national systems • Large and hierarchical organizations	• Capacity building of small farmers, farmer groups, local institutions/NGOs working with farmer communities • Investment decisions to be determined by the small-holder farmer/producer needs and priorities • Partnerships among farmers, local communities, institutions working with the farmer communities • Optimally sized community based farmer/producer organizations to facilitate small producers in market
4. *Research/ innovation methods*	• Research/innovation is reductionist • High specialization: breeding varieties • Agricultural scientists governed by technological path dependency rather than usefulness of research to small farmers • Knowledge systems largely based on laboratory and research station experiments • Scaling up	• Research/innovation is holistic and integrated • Integrated low-cost agriculture to be the focus of research • Research to be practical and applicable to small farmer's context • Knowledge systems that are based on action research in the farmer's field conditions and situation • Replication

Table 4 (*Continued*)

Approaches	Competitive and industrial market economy system	Co-operative and socio-cultural ecosystem
5. *Indicators/ measurement units*	• Food security at global level • Nutritional security at global level • Development of national and international commodity markets • Scale and commoditization • Nitrogen, phosphorous, and potassium (NPK) in soil • Central tendencies • GDP, income, production, productivity, etc.	• Food and nutritional security through the small producers and local communities • Nutritional security for small producers and local communities • Development of local markets closer to farming communities • Scope or diversity • Carbon content in soil • Central tendencies with focus on variances • Net income of small-holder farmers/producers

generation (Nayak 2011b, 2013b) that leads to tensions and economic recession, has unfortunately been employed to resolve the problems of economic recession throughout the history of industrial revolution over the last 300 years.

The logic, tools, techniques, rationale, approach, and values are indeed completely different under the paradigm of competition and the paradigm of co-operation. While the logic under external competition and market economy is efficiency, the logic under co-operation is long-term sustainability based on trust and deep relationships. The tools and techniques of competition include *private property rights*, *contracts*, *money-capital*, and *control*, in contrast to *common property rights*, *trust*, *participation-democracy*, and *social capital* under the paradigm of co-operation.

The rationale under competition includes instrumental rationality measured through economic indicators, whereas the rationale under co-operation includes emotional, social, cultural, moral, contentment, and economic indicators that measure well-being. Similarly, the approach under competition is *top-down* in contrast to *bottom-up* under co-operation.

Further, one of the most important dimensions of any successful engagement has been the value base. The norm under competition is to take from the externality and accumulate for self or an interest group. We may term this as a *clan value*-seeking behaviour. This is quite contrary to the values of love, service, and sacrifice under co-operation. These are the *universal values* of all societies across time. See Table 5 for the distinctions in the language, logic, and values of the two paradigms.

It is indeed alarming that the language, logic, and values of the market-based competition are driving several other subjects in social sciences. Subjects that do not internalize the terminologies of the market-based external competition paradigm do not generate interest among the majority of the stakeholders. While the logic of co-operation seems to be the key to sustainable community systems, the world is increasingly transforming to adopt the language, logic, and values of market-based competition that exhibits more and more signs of unsustainability. The confusions and tensions today in the theory, practice, and policy for recreating sustainable systems essentially arise out of a lack of conceptual clarity and an inability to distinguish the values, logic, and language of competition from that of co-operation.

Table 5. Logic, language, and values under different paradigms.

Market-based competition	Parameters	Co-operation-based community systems
Efficiency market economy	Logic	Sustainability trust and co-operation
Private property rights, contracts, financial capital scale, intensive technology	Tools and techniques	Common property, participation, social capital scope, appropriate technology
Instrumental rationality, ROI (profit), risks, economic indicators, GDP	Rationale and performance indicators	Emotional, moral, social, psychological, challenges, sustainability indicators, well-being
Top-down welfare state as per state regulations, rivalry and competition	Approaches	Bottom-up direct community welfare, communitarian spirit
Clan values: take and accumulate for self or a small group	Values	Universal values: service, sacrifice, and love for others

Transitional strategies for sustainable community systems

Against the backdrop of the odds against long-term sustainability of community systems, this section presents a transitional strategy for rebuilding sustainable community systems from within the existing competitive market economy system. It is based on the experiences and trends observed from an action research project undertaken by the author from 2008 to 2013 in one of the remote tribal communities in southern Odisha of India. The action research has been built on the logic that restructuring the organizational design and institutional architecture on the principles of deep relationships, trust, and co-operation could recreate sustainable community systems for future long-term sustainability. From the present paradigm of imperfect market competition (Paradigm Y), we could move to advanced community co-operation from that of primitive community co-operation. Figure 1 shows the state of transition.

From primitive smaller agricultural communities based on co-operation, the communities during the last 300 years of industrial revolution have evolved to large industrial and urban communities based on competition. Greater efficiency has been presumed to be possible with greater external competition in industrial market systems, as under Paradigm Y in Figure 1. Using the framework and assumptions of perfect market competition, the industrial market economy has been pursued gradually during the last 300 years across the world. However, given the unrealistic assumptions of this model in large systems, the market-based economies in the world have graduated to an imperfect market competition rather than perfect market competition. The limitations of this system of relationships among individuals, organizations, and institutions have been consuming the viability of economies of today and making them unsustainable (Nayak 2014a, 2014b).

Contrary to expected outcomes, with greater industrialization, urbanization, privatization, liberalization, globalization, and commoditization, the small and marginal producers in the rural and tribal agricultural settings are being pushed to a highly asymmetric disadvantageous position. Asymmetries in information, knowledge, skills, competences, resources, technologies, power, etc. in the above settings make their situation even more complex. In addition, the uncertainty in weather and climate conditions, e.g. incorrect

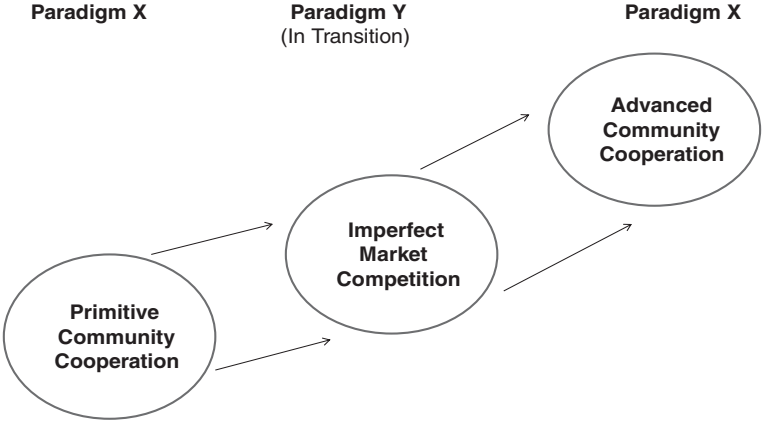

Figure 1. Transition strategy.

assessment on time of sowing, makes the situation challenging and highly risky (Nayak 2013c) for the small farmers who constitute over 65% of farmers across the world.

Further, poor health, lack of primary education, and reducing incomes from the agricultural activities have led to out-migration of people from rural agricultural communities. Not only has the overall climate of liberalization, privatization, and globalization exposed the small agricultural producers to the global commodity markets and industrial economic system, the culture of agriculture has been adversely affected (Nayak 2013c).

In the light of crumbling traditional communities, recession in industrial economies, and growing unsustainability of industrial economies and cultures, there has been increasing realization of the necessity to search for alternative socio-cultural economic systems that could be sustainable. The highly asymmetrically disadvantaged situation of the majority at the base of the social pyramid demands that we take a system view to redesigning sustainable community systems. The testing of sustainable designs of organizations and institutions are first attempted in the tribal and rural agricultural community prior to taking forward these design principles to transform industrial communities for sustainability.

Design of community enterprise systems

The internal design of the community enterprise system for sustainability includes five variables:

The *size* of membership/ownership is designed to increase the frequency of interactions among the members so that participation in decision-making is enhanced. Greater frequency of interaction with a positive feedback to the participants would help build trust and co-operation among the members. The *scope* of economic engagement is designed to ensure earning greater value to the small producers for the labour put in by them in a variety of activities of agriculture and non-agriculture throughout the year. Application of appropriate *technology* refers to the use of both product and process technologies in agriculture and allied activities that is less costly and least alien to the existing capacity of the people of the community.

Similarly, the organizational structure and *management* processes are to be simple and less hierarchical so the cost of management is optimal. This can be facilitated by training the local youth to manage and employing them to operate the community enterprise system. Similarly, the management and governance structure needs to be systematically built where the people of the community develop the sense of *ownership* and responsibility to manage the community enterprise system on their own. It is important to note that all these five design variables have to be simultaneously optimized. If even one of these variables is not optimized, it can undermine the sustainability of the design over a period of time.

The *market landscape* for the surplus produce of the community enterprise systems is also to be designed keeping in mind the variety and lower volumes, so that maximum value can be earned for the producer with minimal transaction costs of marketing. *Convergence* of resources from external sources can be based on whether the convergence will enhance the long-term capability of the community in addition to the medium- and short-term benefits.

In addition to designing a community organization which serves as the community-based, community-paced, community-managed, and community-owned enterprise system,

it is essential to design the *institutional architecture* of the above community organizations in a larger social system (at a district level in the Indian settings) and redesign their *institutional relationships* for long-term stable socio-economic–environmental relationships (Nayak 2013a).

Further, the design of the community enterprise system has to incorporate systematically the characteristics and context of the small farmers/producers of rural/tribal agricultural settings. The small farmer/producer is like a mini-enterprise engaged in multiple activities of production, operation, marketing, finance, and external linkages for his/her livelihood. The challenges of engaging in multiple functions in an environment of growing specialization due to industrialization and globalization for a small producer are enormous. The small producer can neither leverage the natural resource base sufficiently, nor can he/she add sufficient value to it to be able to get better prices for the products.

For efficient production of farm and off-farm produce, the producer essentially has to walk in tandem with the seasons of his/her micro-ecology to be able to obtain resources from nature throughout 365 days of the year. It is the ability of the farmer to integrate strategically the various resource bases of the micro-ecology to enhance his total production. Agriculture is indeed an integrated activity. Therefore the strategy of the small producer ought to integrate natural farming with livestock, horticulture, minor forest produce, and other allied activities. Practising integrated farming reduces the cost of agriculture, increases productivity, and generates a basket of products instead of one product with a mono-cropping method. This way, the consumption and nutritional needs of the producer family are met, which is the primary objective of a small producer. The surplus produce of the farmer and its subsequent value addition and marketing activities can be undertaken by the community organization that serves as a *small farmers' agribusiness unit* of the farmers/producers.

Integration of production activities at the farmer/producer level and separation of post-harvest, value addition, and marketing activities from the small farmer/producer brings in much higher efficiency to the community enterprise system. The combination of the above two steps can greatly improve the sustainability of the small farmer/producers in rural agricultural settings. The community enterprise system is designed to facilitate both integration and separation of activities in the community. The ability to do this depends on developing the capabilities of local human resources or the rural youth and their capacity to develop simple management routines to manage systematically and professionally the activities of an enterprise including value addition, marketing, book-keeping, supply chain management, and documentation.

In addition to production functions of the community, the community organization/enterprise also needs to streamline, integrate, and co-ordinate the people on community health, hygiene, primary education, and basic physical infrastructure of the community. The value chain in a community will therefore include the production and value addition activities along with the above activities. Organizing the community for self-reliance through systematic building of trust and co-operation among the people in the community will, however, be the key to sustaining all the other activities in the community.

The overall design of the community enterprise system, including its activities and functions, internal design variables, and the external linkages to markets and resource convergence for rebuilding a sustainable community system in a rural/tribal agricultural setting in a developing country context, is shown in Figure 2.

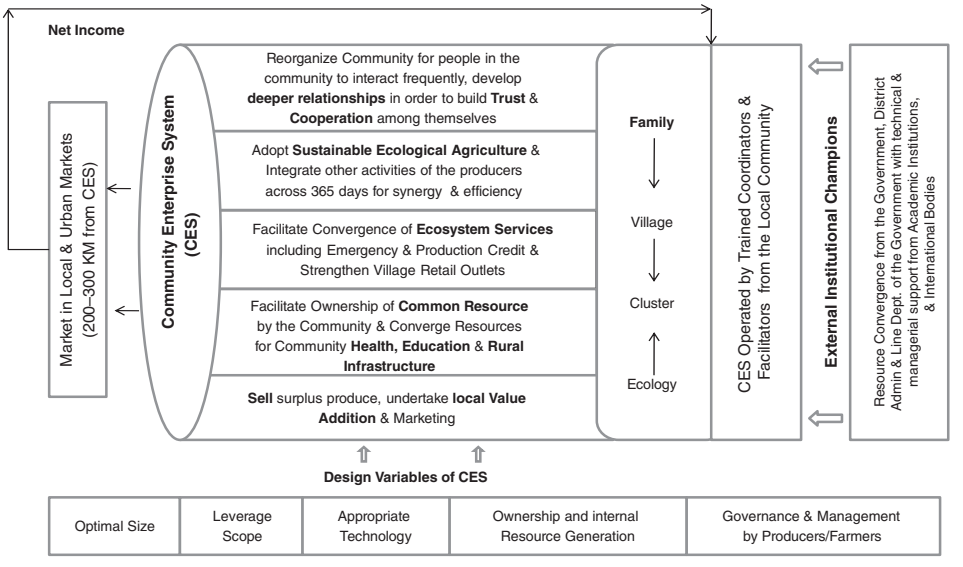

Figure 2. Design, functions, and management of sustainable community enterprise system. Source: Nayak (2012b).

Acknowledgements

I would like to the thank the producers of the rural/tribal community, various partners like NABARD, Rabo Bank Foundation, XIMB, NISWASS, OCD, ORMAS, and TDCC, for their support in this action research. I also thank my colleagues, especially György Széll, Anup K. Dash, and Sashmi Nayak, for their comments and suggestions on the article.

Funding

This research has been possible with the action research grant support from the National Bank for Agriculture & Rural Development, India and Rabo Bank Foundation, The Netherlands (P 11.01).

References

Kondratiev, N.D., 1921. *New economic policy*, 10th Congress. Moscow: All Russian Communist Party.

Marx, K., 1927. *Economic and philosophic manuscript of 1844*. Available from: www.marxists.org/archive/marx/works/1844/manuscripts/preface.htm.

Nayak, A.K.J.R., 2008. *Multinationals in India, FDI and complementation strategy in a developing country*. London: Palgrave Macmillan.

Nayak, A.K.J.R., 2009. *Optimizing asymmetries for sustainability: design issues of producers' organization*. XIMB Sustainability Seminar Series, Working Paper 1.0, January. Bhubaneswar: XIMB.

Nayak, A.K.J.R., 2011a. *Indian multinationals, the dynamics of explosive growth in a developing country context*. London: Palgrave Macmillan.

Nayak, A.K.J.R., 2011b. Globalization: a framework for perpetuation of asymmetries. *Vilakshan, XIMB journal of management*, 8 (1), 1–20.

Nayak, A.K.J.R., 2011c. *Efficiency, effectiveness and sustainability: the basis of competition and cooperation*. XIMB Sustainability Seminar Series, Working Paper 3.0, December. Bhubaneswar: XIMB.

Nayak, A.K.J.R., 2012a. *Integrated low cost agriculture for internal consistency and external synergy for sustainability of smallholder farmers: case of Nava Jyoti agricultural community.* Sustainability Seminar Series 4.0, August. Bhubaneswar: XIMB.
Nayak, A.K.J.R., 2012b. *Implementing community enterprise system for sustainability of rural agricultural communities – a manual*. New Delhi: NABARD-XIMB-RBF Publication.
Nayak, A.K.J.R., 2012c. *Management @ grassroots, a management curriculum for rural youth to professionally managed community based producer organizations*. Bhubaneswar: XIMB-SFAC Publication.
Nayak, A.K.J.R., 2013a. *Chapter 8, Institutional architecture and relationships, implementing community enterprise system for sustainability of rural agricultural communities – a manual*. Bhubaneswar: NABARD-XIMB-RBF Publication.
Nayak, A.K.J.R., 2013b. Economies of scope: context of agricultural science, smallholder farmers and sustainability. *In:National Livelihoods Conference, New Delhi and Sustainability Seminar Series 9.0*. Bhubaneswar: Xavier Institute of Management.
Nayak, A.K.J.R., 2013c. *Report on baseline survey of farmers. Under the pilot project for augmenting farm productivity in Balasore District, Odisha*. Bhubaneswar: XIMB.
Nayak, A.K.J.R., 2014a. *All India baseline study on natural farming practices*. Bhubaneswar: XIMB.
Nayak, A.K.J.R., 2014b. *All India baseline study on producer companies*. Bhubaneswar: XIMB.
North, D.C., 1984. Transition costs, institutions and economic history. *Zeitschrift für die gesamte Staatswissenschaft/Journal of institutional and theoretical economics*, 140 (1), 7–17.
Schumacher, E.F., 1973. *A study of economics as if people mattered*. London: Blond and Briggs.
Schumpeter, J.A., 1943. *Capitalism, socialism and democracy*. London: Routledge.
Smith, A., 1776. *Wealth of nations*. Oxford: Oxford University Press [Reprint 1993].
Vernon, R., 1971. *Sovereignty at Bay: the multinational spread of US enterprises*. New York: Basic Books.
Vernon, R., 1977. *Storm over the multinationals: the real issue*. London: Macmillan Press.
Vernon, R., 2009. *In the Hurricane's eye: the troubled prospects of multinational enterprises*. Cambridge, MA: Harvard University Press.
WCED/World Commission on Environment and Development, 1987. *Our common future*. Oxford: Oxford University Press.
Williamson, O.E., 1985. *The economic institutions of capitalism: firms, markets, relational contracting*. New York: The Free Press.