

Major Challenges of Iranian Rural Communities for Achieving Sustainable Development

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Abstract: Problem statement: Rural population in Iran live in an unstable environment and geographically, villages are extremely diverse and more than 65% of them have population less than 250 persons, which do not provide sufficient population threshold for most of services and sustainable economic and job creation activities. Only 7.5% of rural areas have population more than 1000 persons. Therefore, the main purpose of this study is to find out major challenges of Iranian rural communities for achieving sustainable development. **Approach:** To fulfill this objective, 60 rural development experts who are engaged in government organizations relevant to rural development, were randomly selected. Questionnaire was used to collect data and its reliability was confirmed by Cronbach's alpha of 0.83. To arrive to consensus of expert's opinion, factor analysis was used to achieve data reduction and extract factors. **Results:** In total, 5 factors, including "economic", "management and planning", "environmental", "social" and "physical challenges" were identified. These factors explained 65.52% of challenges to achieving sustainable development in rural areas in Iran. **Conclusion:** Diversification of rural economy, supporting job creation activities, promoting sustainable rural tourism, business and industrial activities, establishing a stable urban-rural network are among important agenda which can create an appropriate condition for sustainable development in Iranian rural communities.

Key words: Sustainable rural development, rural development challenges in Iran, Diversification of rural economy

INTRODUCTION

In the end of 1987s a new paradigm, called sustainability, concluded that scientific evidence demonstrated rapid destruction of air, water, species of flora and fauna, deserts, forests and other ecosystems as well as overuse of natural resources. The Brundtland Commission Report thrust the concept of "sustainable development" into the mainstream of world debate, as the only manner to confront the twin problems of environmental degradation and necessary economic development. The commission's report defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs"^[1]. In the early 1990s rural development was almost a synonym for the agricultural sector. Now it is clearly understood that it also includes other industries

employing the rural population, as well as social issues such as education and training, environmental protection, medical care and infrastructure^[2]. By incorporating the dimension of time, or futurity, the definition of sustainable development introduced three inter connected, mutually inclusive themes, or spheres: the environment, society and economics. Numerous authors have presented the union of these spheres to graphically illustrate the concept of sustainability^[3] (Fig. 1). According to the sustainability paradigm no single sphere should be allowed to dominate a development decision. In fact, each of the spheres should be taken into equal consideration prior to any economic decision.

In the words of Wilkerson and Baruah, while sustainability has local, regional, national and international dimensions, ultimately, it must be achieved at the local level where people live,

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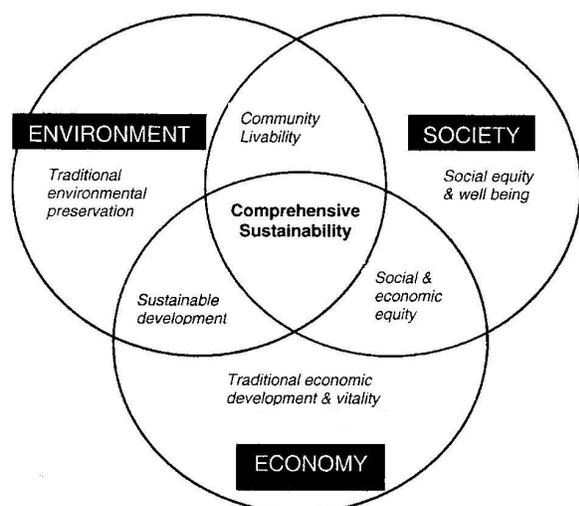


Fig. 1: The three spheres of sustainability Source: Diagram adapted from: www.tcst.org

work and interact with each other and with nature^[4]. Since 1987, however, a number of different agencies have attempted to operationalize the concept of sustainable development at the community level.

A community defined in terms of sustainable development means, the pursuit of modes of economic development that not just “environmentally friendly”, but which also offer the community long-term economic stability, diversity and prosperity. In this context a sustainable economy means building a local economy that is both stable and diversified. The social sustainable means, a community satisfies basic human needs for food, shelter, education, income, safe living and working conditions, job opportunities, equity and social well-being, participation and involvement. Today the term sustainability and sustainable development are used interchangeably. These terms define a new approach to development that requires the broad integration of economic, environment and social factors in contrast to the traditional economic growth model that advances only the economic condition at the expense of the environmental and social conditions. Thus the concept of sustainability introduces a new way of thinking about development, one which requires the entrenchment of environmental and social considerations into economic policy making^[5].

In Iran 22.23 million people living in 65000 villages who directly or indirectly depend on agriculture to survive, while most of them are living under poverty line^[1]. Still Iranian rural economy is dominated by agricultural sector which accounts for 27% of GDP, 22.9% of employment opportunities, 82% of food supply and 35% of non-oil exports, plus

considerable raw materials for industrial use^[6]. These figures show that rural economy has an important role in national economy. To establish a sustainable economy in rural areas, almost every village needs credit, clean seeds, infrastructure and guidance in crops and livestock production. They also need farm machinery, marketing facilities, cooperatives, water supplies, education and diverse economic activities. For a sustainable and efficient rural development, each village must be provision with all of these inputs and functions. Integration of the functions and efficient management demand an active and sustainable local communities and institutions. Today a large number of government organizations deal with the development of agricultural and other issues in rural areas. The institution which is most influential in rural development is the Ministry of Agricultural Jihad, which is responsible for the agricultural sector, forestry, natural resource, fishery and several rural industries. Other ministries are involved with the process of rural development according to their area of activities. This implies the sectoral approach in rural development prevails over the territorial approach in Iran. The rural problems are tackled by various government institutions and this requires appropriate co-ordination among them. Lack of such co-ordination and co-operation among institutions and organizations involved in rural development is a serious problem affecting sustainable rural development in Iran. Thus, the main goal of millennium development in Iran should be focus on methods of sustainable rural development. This depends on addressing the challenges of sustainable rural development in Iran. Thus the main objective of this study is to investigate major challenges of Iranian rural communities for achieving sustainable development and provide some recommendations in this respect.

MATERIALS AND METHODS

In this study the data and information were gathered through extensive survey questionnaires filled out by 60 experts of rural development of relevant departments of Management and Planning Organization, Ministry of Agricultural Jihad and Housing Foundation. Questionnaire’s validity was confirmed by university professors of rural development department and several rural development experts and its reliability also was confirmed by Cronbach’s alpha of 0.83 level. Factor analysis was applied to analyze interrelationship between a large numbers of variables and to explain these variables in terms of their common underlying dimensions.

RESULTS

In this study 48 challenges in respect of sustainable rural development were considered. In total 60 experts of rural development from three different ministries and organizations which are engaged in the process of policy-making, planning and implementation of rural development projects were randomly selected to evaluate the major challenges of sustainable rural development in Iran. Factor analysis was applied to reduce the number of challenges and detect structure in the relationships between variables. KMO measure of

adequacy (0.72) and Bartlett's Test of Sphericity (Approx. Chi-Square = 2512.39, with Sig. = 0.000) showed that the data are appropriate for factor analysis. Exploratory factor analysis was used and out of 48 challenges only 35 challenges were classified into 5 factors which explained 65.52% of variance, (Table 1). Factor loadings of each variable are shown in Table 2. It is revealed from Table 2 that, lack of diversification in rural economy, particularly in non-agricultural sector (0.843), low income level (0.734), lack of commercialization in agricultural production (0.830), rural poverty (0.771), mechanization problem (0.734),

Table 1: Eigenvalues and variance explained by each factor

Factors	Eigenvalue	Percentage of variance	Cumulative (%)	Share of each factor from total explained variance
Economic challenges	6.77	18.30	18.30	27.93
Management and planning challenges	5.06	13.68	31.98	20.88
Environmental challenges	4.62	12.49	44.47	19.07
Social challenges	3.94	10.65	55.13	16.26
Physical challenges	3.85	10.39	65.52	15.86

Table 2: Factor loadings of challenges of rural communities for achieving sustainable development

Name of Factor	Challenges	Factor loadings
Economic challenges	Lack of diversification in non-agricultural activities	0.843
	Low level of income	0.734
	Insufficiency in commercialization of agricultural production in dominant agricultural operations	0.830
	Rural poverty	0.771
	Mechanization problem of agricultural sector	0.734
	Lack of investment in tourism	0.811
	Low productivity in rural economy (agriculture, rural industries ...)	0.769
	Insufficient allocation of budget and credits for rural development	0.750
	Lack of basic infrastructure for rural industrial development	0.825
	Limited access to agricultural production markets	0.588
Management and planning challenges	Interposing of different government organizations in rural development plans	0.831
	Theoretical weakness and lack of an appropriate operational model for sustainable rural development	0.907
	Weakness of people participation in implementation and maintaining of rural development projects	0.928
	Lack of a coherent strategy for sustainable rural development	0.793
	Absence of participation of NGOs and local organizations in planning and implantation of rural development projects	0.599
	Uncoordinated plans and policies for rural communities	0.804
	Lack of sufficient attention for sustainable rural development	0.660
Environmental challenges	Land use change from agriculture to non-agriculture	0.581
	Unfavorable ecological conditions for sustainable rural development	0.896
	Weakness in rural natural disaster management	0.672
	Lack of balance between human and natural resources	0.852
	Over-exploiting of underground water resources	0.629
	Use of unsuitable technology in agricultural sector	0.919
Social challenges	Rural sanitation problems	0.700
	Lack of attention to indigenous knowledge in different dimensions of sustainable rural development	0.722
	Shortage of job opportunities for rural youths	0.785
	Lack of awareness of villagers to the methods and principles of accessing sustainable development	0.684
	Insufficient population threshold in many rural settlements for providing social services	0.816
Physical challenges	Domination of unqualified work force in rural economy	0.631
	Lack of social justice in providing socio-economic facilities between rural and urban areas	0.671
	Weakness in rural infrastructure such as (road, health facilities, water, etc.)	0.987
	Lack/weakness of urban-rural network for constructing a logical linkage between rural centers and small towns to provide socio-economic services	0.929
	Vulnerability of rural settlements to natural disasters	0.667
	Lack of an appropriate spatial organization of rural settlement system, Existing wide gap and disparities between urban centers and rural communities	0.890

lack of investment in tourism (0.811), low productivity in rural economy (0.769), insufficient allocation of budget for rural development (0.750), lack of basic infrastructure (0.825) and limited access to agricultural production markets (0.588), are the main challenges of economic sustainable development of rural areas. Economic challenges contain 27.93% of total explained variance (Table 1). Second factor is related to management and planning challenges. This dimension includes 20.88% of total explained variance (Table 1). Interposing of various government organizations in rural development plans (0.831), theoretical weakness and lack of an appropriate operational model of sustainable rural development (0.907), absence of people participation in implementation and maintaining of rural development projects (0.928), lack of a coherent strategy for sustainable rural development (0.793), absence of participation of NGOs and local organizations in planning and implementation process of rural development projects (0.599), uncoordinated plans and policies for rural communities (0.804) and lack of sufficient attention for sustainable rural development (0.660) are among major challenges of sustainable rural management and planning. Third factor is named environmental challenges which contain 19.07% of total explained variance. Land use change from agriculture to non-agricultural activities (0.581), unfavorable ecological conditions for sustainable rural development (0.896), weakness in rural natural disaster management (0.672), lack of balance between human and natural resources (0.852), over-exploiting of underground water resources (0.629), use of unsuitable technology in agricultural sector (0.919) and rural sanitation problems (0.700), are considered among environmental challenges. Social sustainability is another important dimension of sustainable development. In this context Iranian rural communities face with various basic challenges. Lack of attention to villager's indigenous knowledge in various economic activities in general and agricultural activities in particular (0.722), shortage of job opportunity for rural youths (0.785), lack of awareness of villagers in respect of methods and principles of accessing sustainable development (0.684), insufficient population threshold in many rural settlements for providing social services (0.816), domination of unqualified work force in rural economic activities (0.631) and lack of social justice in providing socio-economic facilities between rural and urban areas (0.671) are important social challenges of sustainable rural development (Table 2). Social dimension includes 16.26% of total explained variance (Table 1). Factor analysis explored several physical challenges which

contain 15.87% of total explained variance. Weakness in rural infrastructure (0.987), lack of an appropriate urban-rural linkage to provide socio-economic facilities (0.929), vulnerability of rural settlements to natural disasters (0.667), lack of an appropriate spatial organization of rural settlement system (0.890) and existing wide gap and disparities between urban centers and rural communities (0.670) are among important challenges of physical dimension of sustainable rural development

DISCUSSION

Overall situation in economic challenges indicates that the rural economy in Iran is too much depending on agriculture. The poor agricultural infrastructure and lack of forward and backward linkages, that hinders the development of other industries, are the main obstacles towards diversify and sustainable economic development of Iranian rural communities. Lack of indigenous and appropriate theoretical framework and coherent strategy for sustainable rural development accompanied by centralized planning system indicates basic management and planning challenges which create pronounced obstacle for involving people in planning process. People participation in local management system and planning process should become in the core of development plans and this requires decentralization of planning system for rural areas. In the process of decentralizing, rural areas should have higher level of authority to participate in planning process. Environmental challenges are emerged in the form of over-exploiting of underground water resources and use of unsuitable technology in agricultural sector. As Iran is located in arid and semi arid areas, there is a growing risk of droughts in most parts of the country, which will further slow down the economic performance of the country in general and agricultural sector in particular. This indicates that ecological and environmental sustainability should be considered in policy making and planning system. Wide Dispersion of rural settlements accompanied by insufficient population threshold indicates physical challenges for rural areas in Iran. This pattern of settlement system does not allow providing any social services as well as diversifying economic activities in many rural areas. Finally, absence of rural-urban linkage and inability to localize these linkages is one of the greatest challenges in promoting a more dynamic process of rural-urban development in most provinces in the country. Due to lack of such policy, disparities occur, as higher value added in processing is captured in national core metropolitan regions. This phenomena

not only creates a fundamental barrier for achieving sustainable development, but generates a deep rural-urban disparities in the country.

CONCLUSION

However 60 years of planning in Iran, has led to better living conditions for villagers. But the important point is that there is a long way to achieve a sustainable local community. Most of the rural development projects have been designed and prepared through government agencies during the past six decades of planning with the least or lack of participation of rural people. It must be emphasized that this kind of centralized planning has been organized through centralized oil revenue. Now with the necessity for more decentralization and privatization; people's participation is very critical to the whole process of sustainable rural development. It is emphasized that rural development cannot be observed without public support and involvement of the whole society.

Today it is clear that rural communities face with various challenges in achieving a sustainable development. It seems that sustainable rural community development in Iran can be achieved through:

- Diversification of rural economy and capacity building of rural communities
- Supporting job creation activities and promoting sustainable tourism, business and industrial activities based on rural social and economic potentials
- Encouraging people for participating in the process of planning, executing and maintaining rural development projects
- Establishing an appropriate urban-rural network to serve rural areas by small towns
- New economic policy needs to be established encouraging micro-enterprise supported by micro-capitals and national policy must secure, protect and improve rural livelihoods

- A new rural sector strategy has to be prepared that incorporate the following objectives: structural change to the production system, with suitable utilization of productive resources and environmentally friendly technologies, sustainable managed resources; no urban bias in health, education and safe water provision; off-farm income and employment generation; decentralized and participatory decision making; functioning rural markets; and widely shared rural economic growth

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