

Relationship between Rural Sustainable Development and Indigenous Knowledge

Mehdi Nazarpour¹ and Mojtaba Sadighi²

^{1,2} Damavand Branch, Islamic Azad University, Damavand, Iran

ABSTRACT

Indigenous knowledge is local knowledge that is restricted to one specific culture and/or certain society. Indigenous knowledge is different with scientific knowledge that was established by universities and scientific communities. This knowledge is basis for decision making at field of agriculture, health, education, food and natural sources. Indigenous knowledge is set of all knowledge and skills that people enjoy in one geographical area (in one environmental conditions) that most of their skills and knowledge be transmitted to next generation, and new generation would be adapted with them and add to it. Since, each knowledge is consequent of individual interaction with environment, so indigenous knowledge is consequent of indigenous people interaction with their environment. Chambers with emphasis on people's role at development process believes that "rural people's knowledge" term is more eloquent than other terms for indigenous knowledge. Our purpose of rural people are producer farmers, input buyers, agriculture production sellers and etc. "people" in above phrase emphasis that this knowledge is more verbal and less has been written. This word also referred to whole knowledge system which contains concepts, beliefs, and attitudes and also contains gain, store and transmitting knowledge process.

Keywords: indigenous knowledge, rural sustainable development.

INTRODUCTION

Sustainability is meaning to make economic, social and environment's views in harmony with our constant needs. Sustainability includes widespread and comprehensive points and is depended on interference in social issues. It is concentrated on future and today's issues and is a world movement and in harmony with our authorities (Kolawopole, 2001).

The correct concept of Sustainability has fallowed a certainly and warranty of life satisfaction quality for everybody. Of course for reaching to this constancy, it is not enough to decrease pollutant activities or prevent of increasing levels of consumption, but also we should make a suitable schematization for decreasing poverty and making activity for reaching to equanimity and improvement of chances in and out of countries. Sustainability had implication on steady and sustainable conditions. Steady condition encompasses distant horizons (Dewes, 1998).

The concept of sustainable development is a complicated concept that is explained by different people in different ways. From international viewpoint, the more famous definition of sustainable development is obtained through 1978 reports by Brandt land commission with this title "our common future" that is defined as follow: sustainable development is a development that contain our modern needs without making any problems in providing future generation's needs.

Sustainable development recognize that social, economic and environmental results are related to each other and they should be equally in harmony for making decisions process. Decisions which are based on Sustainability will help future generation in reaching to a well environment and success economic (Box, 1999).

Sustainable agriculture is kind of agriculture that is toward human's interests and has more efficiency of using resources, and also is in balance with environment. This definition is in harmony with changing social and politic factors at agriculture development. and also it referred to kind of agriculture that is enable to produce enough foods without destroying world sources or polluting environment. It is also kind of agriculture that is follow with social values, agriculture family's welfare and supplying needed foods.

Generally sustainable agriculture is every kind of production system which follows theses goals:

More complete mixing of natural processes such as food cycles, nitrogen fixation, and relation of pests and natural disasters with agriculture productions processes.

Decreasing use of that non-farming, outside and non-renewable inputs in order to reduce damage to environment or less damage to farmers and consumer's health.

More fair access to interests and productions opportunities and progress in order to access to forms of agriculture that is fairer, and also increasing self reliance between farmers and villagers (Chambers, 2000).

Using more potential biologic and genetic aptitude of plant and animal species.

Using more local knowledge including innovative approaches that scholars didn't understand it completely or farmers didn't accept it extensively.

Combined agriculture would prepare this opportunity for common systems to apply needed reforms without creating inclusive changes in it toward organic systems. Therefore, aforementioned systems are considered as medium between common intensive agriculture and organic agriculture methods.

Two principles have especial importance at sustainable agriculture that is:

At early 1980's, with the emergence of new concepts, renewable agriculture and sustainable agriculture evolved and indeed it was based on "ecological interplay affect". Now, this concept forms alter indigenous agriculture philosophy.

Sustainable agriculture presented from 1987 at global scale. In this principle, "agricultural interplay affects with society" is presented. Three issues are important about sustainability: first is enough income especially between poor people. Second is increasing access opportunity to food and its consumption. This means that more food should be prepared through increasing production and improving marketing. Third issue contains protecting and improving natural resources (Louise, 2000).

Ideal and infrastructural information in sustainable development consist of:

- 1- Environment and economic integration: economic decisions should be made according to their effect on environment.
- 2- Making guarantee between generations: decisions should be made according to their effect on future generation's environment
- 3- Social justice: all the people have this right to have an environment to grow on it and be successful
- 4- Environmental protection: it is needed to protect of natural sources and support plants and animals.
- 5- Quality of life: a widespread definition of human welfare should be given which is more important than economic welfare

Indigenous knowledge and sustainable rural development:

By possessing this valuable information it is possible to predict its component relations , and it is possible to use of its latent power intelligently so that both balance be preserved and also human's needs be supplied.

At the other hand furthermore valuable latent information in indigenous knowledge, villager's epistemology would enforce relation between experts and local men. This issue is possible through deep analyzing of indigenous knowledge and familiarizing with local people's attitudes and epistemology and through that raft between men and experts would be restored. Everything is inter-related at village and intelligent rural people by considering accessible things in nature or easily is obtainable, would supply their needs (Box, 1999).

Broaching indigenous knowledge issue in order to presenting new approaches was reinforces in current decade which insists on human-oriented developing and sustaining. In this attitude, development process, environmental, social and cultural considerations, was considered important in addition to economic interests. Principle of sustainable development can be summarized so that development should be consistent with desired society from aspects of sustainable environment, fair social aspect, and from economic efficiency and cultural viewpoint. Considering people's indigenous knowledge was emphasized directly or indirectly as one of the development needs, at most of forty principles of sustainable development charter. Considering indigenous knowledge means accepting variation principle and describes that all people share and participate at variation and culture richness and they create common human's heritage. Sustainable development would not be able to be success without identifying people's indigenous knowledge, role and its position and also without protecting knowledge and indigenous people's rights, because indigenous knowledge has most consistency with principle of sustainable development (Karami and Moradi, 2003).

Necessity of attention to indigenous knowledge was appeared more due to failure of common development samples, especially at rural development, and being attracted to it to help formal knowledge was identified very critical. At the context of cooperative approach as new approach that is base on paradigms which forms concepts of development, focus on new revolution is emergence of new proficiency that is called indigenous knowledge. Cooperative approach is seeking to systematic use of indigenous knowledge at related researches to technologic actions.

According to different definitions of indigenous knowledge, it is possible to count it as part of unique culture of each ecosystem or country and that is knowledge and findings which obtained through experience in order to be consistent with certain ecosystem conditions, and changed as part of social and productive culture of that society over time. This acknowledges, represent compatibility methods with nature and establishing reasonable relationship between human and his environment. And has complete harmony with principle of sustainable development, form this viewpoint (Burger, 1997).

Characters of indigenous knowledge:

The characters of indigenous knowledge like the definition of this knowledge are presented by experts in different ways which we will explain about them as follow:

1- It is based on experience:

Indigenous knowledge is the result of people's experience during many centuries.

2- It was tested during centuries by working on it.

3- It is compatible with indigenous environment and culture:

Indigenous knowledge was created through indigenous societies and it was formed according to their needs and during time the things which were not compatible with indigenous environment were omitted, so what was remained was compatible with the environment and culture of that society (Amiri Ardekani and 2003).

4- It is dynamic and is changing:

Simultaneously with changing indigenous culture, the indigenous knowledge was changing too.

5- The knowledge of rural people was not technical:

This knowledge was consisted of rural people's wishes, values and preferences.

6- The rural people's knowledge is not statistic:

This knowledge was formed according to people's culture, social and economic history. The history which was written by these rural people shows that their manner and activities were efficient in changing of their conditions.

7- Rural people's knowledge is not enough.

Maybe the rural people are knowledgeable but they like to know more and more. Because they want to be powerful in their discussions with political, economical and social forces who made these people poverty before give them technology (Zare and Yaghoubi, 2003).

8- Rural people's knowledge has root on their political economy and is more important in political field.

The advantages that rural people can get from indigenous knowledge are the knowledge that is created and released locally and is on their authority and also depends on main factors in regional politic economy (land distribution, marketing relations, and vertical links and ...). So improvement of their livelihoods depends on interferences which were made to pervade on these main factors.

9- Most of the rural people are public-oriented

Mostly, they have a little information about many things which is in contrast with academic educations. Specialist people in universities have deep knowledge in little fields (of course some of these indigenous people are specialist too) (Razavi, 1999).

10- Indigenous knowledge systems are holist:

Local people consider the other people's problems as their problems and try to solve these problems in a whole frame with using their knowledge.

11- Indigenous knowledge systems combine the culture and religious believes.

Religious believes as a part of indigenous knowledge are not separated from technical knowledge and these believes effect on people' do and don't

12- Indigenous knowledge systems prefer the less risk to most profit

Escaping of risk is important for indigenous people, for example an indigenous person usually keeps some goats for possible cases such as disease of his children and he and he didn't expect any incomes of these cases.

RESULTS

In the past half century, modern knowledge has provided new and modern technologies in agriculture that has caused a main evolution in production process. Also this technology has caused problems in environment, production and social aspects and has forced thinkers and deciders to think about them carefully. One of the ways to solve these problems is that to use of our ancestor's tentative knowledge. Using of our ancestor's knowledge and experience is called indigenous knowledge and this provide an opportunity to use of local knowledge in the process of specifying needs and designing suitable technologies and applying it. The indigenous and modern knowledge not only are not in contrast with each other but also are each other's supplement to reach a sustainable development and we can use of them in our needed technologies. Believe of educated people to indigenous people and their knowledge "precondition for making them close" is called combination and compilation. Making evolution in modern system for attention to tentative knowledge is the main necessity for this compilation. Another necessity for this evolution is the researcher's attention to experimental accumulated wisdom and historical exploit by using qualitative and communion methods. Also applying compilation methods and making evolution among government, educational centers, farmers and peasant is the necessity and pre condition for combination of modern and indigenous knowledge.

On the research which was done by Bozarjomhari (2004) with this title "analyzing indigenous knowledge position on rural sustainable development". It was specified that although there are many differences between indigenous and modern knowledge but they are not in contrast with each other, because they are each other's supplement and we can't be success when we use them separately. According to new parameters in rural development, for solving rural problems, at the first we should use of indigenous solutions and if it was not efficient, we can use and test external solutions.

Research findings which was done by Emadi and Amiri (2004) with this title " compilation of indigenous and modern knowledge is necessary for reaching agriculture sustainable development" signify that The believe of educated people to indigenous people and their knowledge " precondition for making them close" is called combination and compilation. Making evolution in modern system for attention to tentative knowledge is the main necessity for this compilation. Another necessity for this evolution is the researcher's attention to experimental accumulated wisdom and historical exploit by using qualitative and communion methods. Also applying compilation methods and making

evolution among government, educational centers, farmers and peasant is the necessity and pre condition for combination of modern and indigenous knowledge.

Research findings that was done by Karimi with this title " indigenous knowledge in development process" signify that indigenous knowledge was a essential element and important source for realization of sustainable development, poverty reduction, making local people capable and motivate them to participate in activities for agriculture and rural development, developing and product suitable technology, rural society's self-reliance and self sufficiency. For this reason all side's try, partnership and protection for record and registration, compatibility, distribution and promotion , exchange of this resources and also suitable and scientific guidelines for compilation of this knowledge with new knowledge and rural and agricultural development plans are needed.

Although indigenous and modern knowledge are different from each other in their nature and usage, but it doesn't mean that they are in contrast with each other. Experience shows that not only indigenous and modern knowledge are not in contrast with each other, but also they are suitable supplement in agriculture and rural development for providing developmental needs.

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