

Importance of Indigenous knowledge in agriculture

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Abstract: Today, experts from all over the world are reaching to use of this knowledge again and they have accepted the second use of this knowledge in sustainable development provisionally. The condition for accepting this knowledge is to remove negation aspects of Indigenous knowledge and specifying correlate Indigenous knowledge, evolution the constancy of this knowledge and improve it and applying developed Indigenous knowledge in Indigenous environment. In other word in Sustainability development, the Indigenous knowledge should be a compilation of these two knowledge according to mentioned instances.

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Introduction:

Maybe the main reason for inattention for Indigenous knowledge in third world countries is that colonist countries don't pay any attention to the peoples' knowledge and information in these countries and always have reminded the people of these colonized countries as a stubborn, superstitious and retrogressive people (Karami and Moradi, 2003). On the other hand, the colonist countries attention to industrial productions and agriculture policies has caused to promote industrial and single product agriculture which will influence the Indigenous farmer's knowledge about different productions and will make it inconspicuous. Also, colonized plans and imported extension programs have intensified the alienation of Indigenous knowledge (Nowroozi and Alagha, 2000). In the middle of 1980 decade, there was a new view "giving priority to farmer" that increased the attention to Indigenous knowledge. This view that emphasized on "listen people and learn of them" emphasized on people's active communion on developing and searching process. Before using of this way, understanding rural society's culture was in another way and it was thought that rural people have failed in economic, politic, innovation and its transfer, creation of knowledge and using of that in rural societies. Before representation of this attitude "giving priority to farmer", it was thought that development need in other people management who are not living on that village. But in this way, we look rural people as the one who are able to solve their problems with relying on their knowledge and experience (Eshraghi, 2000). Indigenous knowledge of each nation has enabled them to supply their needs from natural sources without reducing these sources. So, indigenous knowledge collection of world is valuable source of

practices and time-tested tool that would be useful for sustainable development of all societies.

At third world countries, unconsidered triumph of world development policies has led to various social, economic, cultural and environmental issues (Agrawal, 2002).

Imbalance population growth, non-sustainable efficiency of natural sources and unequal distribution of resources, goods and services made involved societies in confusing issues and impasses. In these countries, inappropriate sampling of abroad countries and inordinate imports (e.g. heterogeneous and non-indigenous technology) devastated independent collection of micro local systems, and instead has established heterogeneous and dependent system to global economy system, that obviously couldn't supply people's needs. Since, this development process is formed without considering social, cultural and environmental consequents so isn't continuing and human have to find strategies which can make development sustainable and humane (Popzan, 2002).

Definition of indigenous (Indigenous) knowledge:

Different definitions were presented about indigenous knowledge by experts that each of them present their idea about this knowledge from their viewpoint. Each of them emphasis on a special aspect of indigenous knowledge according to their viewpoint. Oxford vocabulary define the word indigenous knowledge such this "it is created naturally in a region which is related to the people of that region. (Azkia and Imani, 2008). Indigenous knowledge is a knowledge that has been grown in a long time and has transferred from one generation to other generation in hereditary form (Karami and

Moradi, 2003). Williams and Molina have defined indigenous knowledge such this: indigenous knowledge is the learning methods, understanding and attitude to the world which is the result of experience and solving problems according to test and error by the people who are active and have used their available resources on its suitable time. Chambers with emphasizing on people's role in development process, believed that the phrase rural people's knowledge is more sensible than the other phrase such ethnic ecology, ethnographic knowledge, ethnic classification. He also believed that indigenous knowledge is a knowledge that is created naturally and is emanated from geographical circle. (Chambers, 2000).

Concept and nature of indigenous knowledge:

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 (Warren, 1993).

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 (Merrewij , 1999) .

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 (Rajasekaran, and Babu, 1996).

Advantage of indigenous agriculture:

It is more than one hundred century that is passed from anthropologist studies in farming societies and production systems and during the last thirty years, comprehensive reports were obtained of subsistence practices. These reports consist of important

information about social relations of production, operational practices and environmental protection that includes indigenous methods for using of earth and rural people's encounter with their environment (Smita, 2003).

These studies have given new dimension to agriculture research. Now, in many countries the managers of agriculture resources are the people who are trained in western countries. So if the manager become familiar with the culture and environment roots of indigenous system of resource management, they won't do mistake. Indigenous agriculture is based on cooperation of farmer with nature. Recently researchers of ecological agriculture have more attention to these systems. The result of these studies is important from two sides:

- 1- At the first, in the process of agriculture renovation in the third world that is indeed unavoidable, the indigenous agriculture knowledge and local methods in management of agriculture resources is to be destroyed and simultaneity environmental regions are on the verge of destruction. Modern agriculture prefers huge profit from resources and didn't pay attention to environmental, cultural, social and economic varieties of traditional agriculture. So incongruities of agriculture development plans are not compatible with rural needs and talents and also rural conditions. By recognizing indigenous agriculture features such as traditional classification for identifying plant and animal species and using of indigenous practices like simultaneous cultivation of compatible crops, we can get useful information about suitable ways for agriculture. Surely these guidelines will be more compatible with rural needs and agriculture and environmental features of each region and won't be reckless to social, economic and environmental complex issues (Appleton and Jeans, 1995).
- 2- Second, with studying indigenous agriculture we can get points that will help us to design the same systems in industrial countries. Sustainable agriculture which is taken from indigenous systems will remedy the shortcoming of modern agriculture. In a single-product of modern farm, life circles of nature has changed by using chemical poison that give no chance for using principles of ecological agriculture. But completeness (evolution) of culture and environment is the result of local

agricultural systems (Ahmed, 2000). In indigenous agriculture, variety and alternation of cultivation make minimize the possibility of farming products destruction. Although these systems have resources limitation, but they use of learning advantage and intellectual ways for use of animals, soil and compatible farm species. For this reason, researchers of ecological agriculture know these systems as unexampled kinds to specify constant static scales for agriculture activities. In industrial countries they use of these scales for designing and managing ecological production systems (Emadi and Amiri Ardekani, 2004).

With all the advantage we account for Indigenous knowledge we should contemplate that for reaching a balanced understanding of this knowledge, we shouldn't indicate it very important or not very unmeaning as Chambers say. Also we shouldn't consider rural people an intellectual people. Because they can make mistake like any other people or group. And also this knowledge is not reliable forever. In some places this knowledge is combined with some superstition believes and we should not forget its spiritual and mental aspect (Warren, 1999).

Conclusion and discussion:

In order to develop agriculture extension activities, considering indigenous knowledge is critical because, sense of self-esteem and reliance on local sources would be reinforced by citing of vast application of Iranian indigenous knowledge and others ancient culture of world at sustainable development of industrial countries.

also, necessity of considering indigenous knowledge at developing extension programs is emanated from where that is considered as principal components and sustainable human development items is emanated from same sources. At sustainable human development, people are considered as "goal" of social and economic policies that their range of their selections would be extended in order to actively participate at decision making. Therefore, people's participation is one of tools of sustainable agriculture development. But active rural people's participation at extension programs as a form of sustainable would not be possible unless by believing role of rural people's knowledge, vision and skills (Brouwer 1998).

Necessity and importance of indigenous knowledge and sustainable human development prepared field for establishing "united nation conference, about nature and development" at 1992.

this conference was established due to complaints against damaging environment in order to prepare basis for active indigenous people's participation at legislation and policy making, how to manage sources and related activities to development; and also if people presented some suggestions about recent subjects, so find way to practice them. Failure of moved technology to rural societies also manifested necessity of considering indigenous people and their knowledge. At the other hand, considering indigenous knowledge is essential to help formal knowledge; because indigenous expert's attendance beside other experts has very critical importance. For example, indigenous peoples know condition of their regional epistemology, very well. Thus, their attendance is very affective for extending incompatible technologies with condition of region and at least, it conceives propagators to test these innovations at small scales and under natural condition and helps to extend them at larger scales, after being ensured of their appropriateness.

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