

**The role of agricultural extension in Integrating indigenous knowledge and modern knowledge in rural**Mohammad Abedi<sup>1</sup> and Sharareh Khodamoradi<sup>2</sup><sup>1</sup>Department of Agricultural Management, Islamic Azad University, Qaemshahr Branch, Iran<sup>2</sup>Department of Agricultural Extension Education, Science and Research Branch, Islamic Azad University, Tehran, Iran\*Corresponding author: [skhodamoradi2007@yahoo.com](mailto:skhodamoradi2007@yahoo.com)

**Abstract:** Experience shows that indigenous knowledge not only has no contradiction with formal knowledge but different indigenous knowledge features, put it as well complementary for formal knowledge. Indigenous knowledge is accessible, useful and cheap. Its perspective is holistic and its transmission is verbal. Knowledge is dynamic and time-tested, and while it has grown within local natural and social environment, so it is very sustainable with indigenous condition. Indigenous knowledge refers to both component and whole part of culture of each nation and this component and whole integration is so that stop to change traditional society of life without indigenous knowledge out of its cultural origin and therefore would lose it concept and effectiveness.

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**1- Introduction:**

During 1950 and 1960 decades, native (indigenous) knowledge was an inefficiency and absolute barrier for development. Nevertheless, now indigenous knowledge is recognized as a basic source. Indeed this knowledge was an answer to failure of great developmental theories by great countries and it was as a technical oriented solution for changing most peasants and farmers view in the world. (Agrawal, 2002).

The lack of indigenous knowledge about indigenous practices in many technologies in the developing countries will lead to failure. So attention to indigenous knowledge as a knowledge that is result of many thousand years experience is important in development of villages. Rural benefactors, the people who had communion in development of villages, can take efficient steps in rural development if they pay attention in the process of rural schematization for its development. Indigenous knowledge has different aspects, such as hygiene and treatment, medical plants, linguistics, livestock and agriculture, art and mystery and unprofessional things (Farrokhi and Yaghoubi, 2002).

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).

From Robert Chambers' view, power and wealth are at industry and at cities, and poverty and deprivation are part of villager's life. Power and wealth of cities of world has absorbed experts, sources and needed research facilities for producing and disseminating knowledge. Knowledge of these modern centers is considered scientific, advanced, and valid and enjoys premium technology. He labeled this group as "first" and in contrast "last" for deprived villagers. Because, preferences and values of these two groups are different.

Their knowledge and attitudes are also different. he believes that since "first" development remedies and their attitudes have led to fault , irregular and deprivation , so deprived villager's attitudes and knowledge should be considered serious in order to reach to improve conditions for this part of human society as they need and demand (Azkia, M and Imani, 2008) .

**2- 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:

**2-1- it is based on experience:**

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

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

**2-3- it is compatible with indigenous environment and culture:**

Indigenous knowledge was created through native 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).

**2-4- it is dynamic and is changing:**

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

**2-5- the knowledge of rural people was not technical:**

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

**2-6- 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.

**2-7- 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).

**2-8- 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). So improvement of their livelihoods depends on interferences which were made to pervade on these main factors.

**2-9- 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 native people are specialist too) (Razavi, 1999).

**2-10- 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.

**2-11- 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.

**2-12- indigenous knowledge systems prefer the less risk to most profit**

Escaping of risk is important for native people, for example a native 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.

**Agriculture Extension and indigenous knowledge:**

Agricultural extension system as one education institute and one of the principal component of knowledge system and information of agriculture can play affective role at valuing farmer's experiences and indigenous knowledge. Extension can helps to sustaining development activities by applying more cooperative approaches, using traditional transmission channels of indigenous knowledge and try to establish mutual learning condition between components of knowledge system and information of technology, while making more adaptability of researches programs with contact's needs (Ahmed, 2000).

You can accept such functions from extension system when that agricultural extension enjoys one multidisciplinary approach as one of component of vast network of knowledge and information of agriculture. And their staffs being under education continuously in order to acquire work condition at network place.

Indigenous foundations at villages originally displays democratic system at rural societies; and from aspect of existential philosophy, principles and goals and practiced methods prepares sustainable management at villages. Indigenous foundations at villages always can be considered as popular responsible organizations, preserver of rural people's interests as an elected institution by people. Enacting every law and orders about or related to villages and also/or far from attending to indigenous foundations in villages can't be applied sustainable and never would have efficiency. Whenever establishing institutions such as cooperative organizations, rural forums, development committees and etc and consequently selecting board and CEO done by

indigenous foundations or their confirmation, so it would enjoy even more efficiency and sustainability. We can seek to most original sample of experienced NGOs about social and economic activities base on voluntary motivations and group cooperative at Iran rural area (Gigler, 2003).

Karlir (1996) emphasized that agriculture education institutes should try to identify agriculture knowledge system and also interpret their application at production systems and if possible, make current education condition compatible. Bahala represented different attitude. He says that modern technology and traditional agriculture knowledge can play important role on modernizing agriculture production systems of third world countries (Brouwer 1998).

Achieving to this purpose is dependent on integration and synthesis of these two knowledge at extension and education programs. He believes that integrating these two knowledge systems can:

Cover wide range of aimed opportunities at traditional and marginal parts, and make basic changes at traditional production systems through applying new technology.

Establish ways at extension programming and agricultural education which trough that they would enable to extend obtained interest of technology without much spending and various facilities. At developing societies such as Iran, factors such as far distance, being far from information centers or lacks of appropriate IT and trained people caused that villager being depraved from accessing to information and IT compared to large cities. According to its necessity at developing agriculture, this issue not only harmful for villagers but also is harmful for agriculture development and national development. So applying and integrating extension organization by using functions of information itself would cause extension, continuity and solidarity of process of relation between three links of extension, research and education. At one hand, accessing to clientele would be facilitated too. Briefly it can be said that applying IT at extension system leads to effectiveness of realization of extension goals and finally realization of development goals.

Most important mission of IT is distributing knowledge and information and from this viewpoint and according to direct relation of using knowledge and producing science at on society and its progress, it is possible to understand more about real position of IT in relation to multi-dimensional development (Amiri Ardakani and Shahvali, 2003).

IT in removing barriers of access to new knowledge is among economic opportunities and social cooperative that was emphasized by extension system and plays important role. Considering that indigenous knowledge, is same issue that people

living with , and base on that they should follow norm and abnormalities of their thought philosophy framework at the their different life fields. Exchange, interaction and constant refinement is considered as obvious features of indigenous knowledge. This knowledge that is based on change, revolution and changes, caused that be dynamic in contrast to its appearance. So, aforementioned knowledge has kept its structure at past and also would keep it at future but its content would be changed.

Local men are guarder of indigenous knowledge of each nation. Farmers, peasantry, rural craftsmen and ranchers, each own his specific skill. These arts and indigenous knowledge first seems simple but these simple methods have enabled villagers to supply their needs by limited sources. This isn't worthless outcome but planners' propagators of new technologies always ignore rural abilities like their needs, preferences and innovations. While, by understanding this knowledge and local acknowledge would provide stable basis for presenting technical questions at agriculture researches. Scholars and experts of Third world countries usually repeatedly deny its people's indigenous knowledge. Their prejudice partly is rooted in European social science scholar's theories and 19 century America that until now is dominated on thought of third world countries especially non-western educated People. While, many case of studies and scientific researches, has proven value and effectiveness of local knowledge. Educated people of new sciences should accept base on new framework and principle of epistemology that their knowledge at all dimensions isn't superior to indigenous people's knowledge (Appleton and Jeans, 1995).

So, at learning process they should confess to weakness of their knowledge and to strengths of indigenous knowledge in order to identify and improve local men's life condition. Nowadays, most scholars especially academic researchers want to understand certain condition of village just by one or more short visits. Obviously, these kinds of visits rarely can inform researchers of real delicate issues of villages and also about complicated economic, social, politic and cultural issues (Farrokhi, S and Yaghoubi, 2002).

### **Conclusion and discussion:**

On the research which was done by Bozarjomhari (2004) with this title "analyzing native knowledge position on rural sustainable development". It was specified that although there are many differences between native 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 native 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 native and modern knowledge is necessary for reaching agriculture sustainable development" signify that The believe of educated people to native 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 native knowledge.

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.

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