Unit Seven
Indigenous Knowledge Systems (IKS) and Practices

Indigenous Knowledge Systems (IKS)

- IKS is defined as technical insight of wisdom gained and developed by people in a particular locality through years of careful observation and experimentation with the phenomena around them. IKS is not just a set of information that is in the minds of the people, which can be simply taped and applied. It is accessible by recall and practice. IKS is embodied in culture and is described as an integrated pattern of human knowledge, beliefs and behavior. It consists of language, ideas, beliefs, customs, taboos, codes, institutions, tools, techniques, artifacts, rituals, ceremonies, folklores and gender. This culture is passed down from one generation to the next generation and generally it provides a holistic view of how to use natural resources based on traditional ethical perspectives. Indigenous knowledge systems (IKS) refer to a body of empirical knowledge and beliefs handed down through generations of long-time inhabitants of a specific locale, by cultural transmission, about the relationship of living beings with each other and their environment.
- In sum, IKS refers to " a total of knowledge and practices, whether explicit or implicit, used in the management of socioeconomic, ecological and spiritual facets of life, stored in the collective memory and communicated orally among members of the community and to the future generations [through, stories, myth, songs, etc]

Indigenous peoples, and Indigenous Knowledge

- ***Local people***: local people are the inhabitants of a particular geographic location who have a culture and belief system, distinct from the international system of knowledge (e.g. the tribal, native, first or aboriginal people of an area.
- Indigenous people possess, practice and protect a total sum of knowledge and skills constitutive of their meaning, belief systems, livelihood constructions and expression that distinguish them from other groups
- Indigenous peoples includes close attachment to ancestral territories and the natural resources in them; presence of customary social and political institutions; economic systems primarily oriented to subsistence production; an indigenous language, often different from the predominant language; and self-identification and identification by others as members of a distinct cultural group

Elements of indigenous identity

- Living in tradition-based cultures,
- Having political autonomy prior to colonialism, and
- Seeking to preserve cultural integrity in the present.
- Recognize the role of land to indigenous peoples

Features indigenous peoples across the globe.

- Self- identification as Indigenous peoples at the individual level and accepted by the community as their member;
- Historical continuity with pre-colonial and/or pre-settler societies;
- Strong link to territories and surrounding natural resources;
- Distinct social, economic or political systems;
- Distinct language, culture and beliefs;
- Formation of non-dominant groups of society; and
- Resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities

Indigenous knowledge

- ***Indigenous knowledge:*** **-** can be defined as “A body of knowledge built up by a group of people through generations of living in close contact with nature. It refers to the unique, traditional and local knowledge existing within and developed around the specific conditions of women and men indigenous to a particular geographic area. Indigenous knowledge contrasts with the international knowledge system produced by universities, research institutions and private firms. It is related to the ways members of a given community define and categorize natural, ecological, social and economic situations according to their lives. Indigenous knowledge is the knowledge that is an indigenous (local) to a given community over generations of living in a particular environment.

Cont...

- Indigenous knowledge is also characterized as *dynamic and continuously adapted* to the changing conditions as well as passes from generations to generations. IK is stored in peoples‟ memories and activities and it is expressed in the form of stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, community laws, local language and taxonomy, agricultural practices, equipment, materials, plant species and animal breeds.
- Indigenous knowledge is *shared and communicated* orally by specific examples and through cultures. Indigenous forms of communications are vital to local level decision- making process and to the preservation, development and spread of IK, i.e., indigenous knowledge has broader meaning. Such knowledge evolves in the local environment so that it is specifically adapted to the requirements of local people and conditions. It is also creative and experimental, constantly incorporating outside influences and inside innovations to meet new conditions. Thus, it is usually a mistake to think of indigenous knowledge as „old-fashioned; „back-ward‟, static‟ or unchanging‟

Special Features of Indigenous Knowledge

- **Local**, in that it is rooted in a particular community and situated within broader cultural traditions; it is a set of experiences generated by people living in those communities. Separating the technical from the non-technical, the rational from the non-rational could be problematic. Therefore, when transferred to other places, there is a potential risk of dislocating IK.
- **Tacit** knowledge and, therefore, not easily codifiable.
- **Transmitted orally**, or through imitation and demonstration. Codifying it may lead to the loss of some of its properties.
- **Experiential rather than theoretical knowledge.** Experience and trial and error, tested in the rigorous laboratory of survival of local communities constantly reinforce IK.
- **Learned through repetition**, which is a defining characteristic of tradition even when new knowledge is added. Repetition aids in the retention and reinforcement of IK.
- **Constantly changing,** being produced as well as reproduced, discovered as well as lost; though it is often perceived by external observers as being somewhat static

Significance of indigenous knowledge

- Indigenous knowledge is important in that people in a community value whatever resource they get from the environment through sustainable production systems. These communities are conscious of the need to self-reliant in capital stocks and management skills.
- The knowledge of local people is an enabling component of development. In this regard; a large percentage of the earth's genetic diversity has been maintained and managed through farmer's IKS.
- Indigenous knowledge system enable people to develop strategies for handling household and communal activities. For example in Ethiopia *Debo and Jige* are an important uniting forces in communal activities. Members of the community unite to provide essential inputs, including direct labor to operations. "This deployment of manpower is strongly supported by IKS, which is composed of technologies, rules, information, approaches, and relationships that are vital to sustainable development‘.
- IKS authorities (elders) make local rules to protect important resources such as useful plants, water bodies, stone terracing, agro-forestry, watersheds and rivers, food preservations, conflict management, calendar, fallowing as a soil regeneration practice, etc. According to Paula Puffer Paula (1995), indigenous / local knowledge can help find the best solution to a development challenges. For example, familiarity with local knowledge can help extensionists and researchers understand and communicate better with local people.

Cont...

- In general, indigenous knowledge is an important part of the lives of the poor. IK is a key element of the “social capital” of the poor; their main asset to invest in the struggle for survival, to produce food, to provide for shelter or to achieve control of their own lives. Furthermore, one cannot overlook indigenous knowledge’s ability to provide effective alternatives to Western know-how. IK offers local people and their development workers further options in designing new projects or addressing specific problems and wider disasters. Instead of relying on imported Western technologies, people in the developing nations can choose from readily available indigenous knowledge or, where appropriate, combine indigenous and Western technology

Indigenous knowledge and development

- Indigenous knowledge refers to what indigenous people know and do, and what they have known and done for generations practices that evolved through trial and error and proved flexible enough to cope with change.
- Indigenous knowledge passes from one generation to the next and enable indigenous people to survive, manage their natural resources and the ecosystems surrounding them like animals, plants, rivers, seas, natural environment, economic, cultural and political organization. Knowledge of these elements form a set of interacting units known as indigenous coping systems. In other words, "IK is relevant to development process such as agriculture, animal husbandry, traditional medicine, saving and credit, community development, poverty alleviation, and peaceful coexistence"

- Indigenous knowledge may help identify cost-effective and sustainable mechanisms for poverty alleviation that are locally manageable and meaningful. It increases and enhances livelihood options, revitalize agriculture, increase food security, improve health and promote a sense of cultural pride within the community. Many plants currently growing wild in the ancestral domain produce natural dye, fiber, detergent and natural oil. Several plants in the ancestral domain have medicinal uses. Chemical compounds of these plants could be identified for the production of organic medicine ."Indigenous knowledge is used at the local level by communities as the basis for decisions pertaining to food security, human and animal health, education, natural resources management, and other vital activities.
- indigenous institutions, indigenous technology, and low-cost approaches can increase the efficiency of development programs because IK is a locally owned and managed resource. Utilizing IK helps to increase the sustainability of development efforts because the IK integration process provides for mutual learning and adaptation, which in turn contributes to the empowerment of local communities.

Preservation, Challenges and Limitations of IK

- Indigenous knowledge, which has generally been passed from generation to generation by word of mouth, is in danger of being lost unless it is formally documented and preserved. The future of IK, that reflects many generations of experience and problem solving by thousands of indigenous people across the globe, is uncertain.
- The loss of IK would impoverish society because, just as the world needs genetic diversity of species, it needs diversity of knowledge systems. The rapid change in the way of life of local communities has largely accounted for the loss of IK. Younger generations underestimate the utility of IK systems because of the influence of modem technology and education.
- If IK is not recorded and preserved, it may be lost and remain inaccessible to other indigenous systems as well as to development workers. Development projects cannot offer sustainable solutions to local problems without integrating local knowledge.

Regarding the challenges and limitations of IK

- Although the knowledge of indigenous communities has been found to be very useful, the, exploitation of natural resources, and increased competition for employment, has set off a problematic chain of events. This modernization has influenced indigenous traditional spread of industrialization threatens the preservation and continued development of IK systems. Industrialization, along with its attendant processes of urbanization African which generate IK and practices can break down. Added to this is the commercial society in many ways and Ethiopia is no exception.
- IK can also be eroded by wider economic and social forces. Pressure on indigenous peoples to integrate with larger societies is often great and, as they become more integrated, the social structures pressure by multinational agrochemical companies eager to break into new markets. As Grenier (1998) puts it: “the growth of national and international markets, the imposition o f educational and religious systems and the impact o f various development processes are leading more and more to the “homogenization” o f the world’s cultures. Consequently, indigenous beliefs, values, customs, know-how and practices may be altered and the resulting knowledge base incomplete.

Limitations

- IK is sometimes accepted uncritically because of naive notions that whatever indigenous people do is naturally in harmony with the environment. Thrupp (1989) argues that we should reject “romanticized and idealistic views of local knowledge and traditional societies”. There is historical and contemporary evidence that indigenous peoples have also committed environmental sins’ through over-grazing, over-hunting, or over-cultivation of the land. It is misleading to think of IK as always being ‘good’, ‘right or ‘sustainable’.
- Quite often the overlooked feature of IK, which needs to be taken into account, is that, like scientific knowledge, sometimes the knowledge which local people rely on is wrong or even harmful. Practices based on, for example, mistaken beliefs, faulty experimentation, or inaccurate information can be dangerous and may even be a barrier to improving the wellbeing of indigenous people.
- Doubleday (2003) pointed out that knowledge is power, so individuals are not always willing to share knowledge among themselves, or with outsiders. Knowledge is a source of status and income (as is the case, for example, with a herbalist) and is often jealously guarded. A related issue is that some indigenous peoples fear that their IK will be misused, and lacking the power to prevent such abuses, they choose to keep quiet.

The Erosion of Indigenous Knowledge Systems(IKS)

- **With rapid population growth**—often due to in-migration or government relocation schemes in the case of large development projects, such as dams — standards of living may be compromised. With poverty, opportunities for short-term gain are selected over environmentally sound local practices. With increasing levels of poverty, farmers, for example, may also have less time and fewer resources to sustain the dynamic nature of IK systems through their local experiments and innovations.
- **The introduction of market-oriented agricultural and forestry practices** focused on mono-cropping is associated with losses in IK and IK practices, through losses in biodiversity and cultural diversity. For instance, policies promoting generic rice and wheat varieties devalue locally adapted species. With the ready availability of many commercial foods, some biodiversity *seems to become less relevant, such as seed and crop varieties selected over the years for their long-term storage attributes.*
- In the short term, chemical inputs *seem to reduce the need to tailor varieties to difficult growing conditions, contributing to the demise of local varieties.*
- With deforestation, certain medicinal plants become more difficult to find (and the knowledge or culture associated with the plants also declines).

Cont...

- More and more knowledge is being lost as a result of the disruption of traditional channels of oral communication. Neither children nor adults spend as much time in their communities anymore (for example, some people travel to the city on a daily basis to go to school, to look for work, or to sell farm produce; many young people are no longer interested in, or do not have the opportunity for, learning traditional methods). It is harder for the older generation to transmit their knowledge to young people.
- As IK is transmitted orally, it is vulnerable to rapid change — especially when people are displaced or when young people acquire values and lifestyles different from those of their ancestors.
- Farmers traditionally maintained their indigenous crop varieties by keeping household seed stocks and by obtaining seed through traditional family and community networks and through exchanges with nearby communities. Some of these traditional networks have been disrupted or no longer exist.
- In the past, outsiders (for example, social, physical, and agricultural scientists, biologists, colonial powers) ignored or maligned IK, depicting it as primitive, simple, static, “not knowledge,” or folklore. This historic neglect (regardless of its cause — racism, ethnocentrism, or modernism, with its complete faith in the scientific method) has contributed to the decline of IK systems, through lack of use and application. This legacy is still continued, as a result of which many professionals are still skeptical.