

Local Knowledge Dynamics: Through an Overview of Indigenous Knowledge and its Trend with Prospective

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Abstract

This is in a nutshell review for understanding local knowledge dynamics through indigenous knowledge, including prevalent knowledge, which is combined of a diverse form of knowledge formal, informal and global knowledge systems. This review has been upheld indigenous knowledge, emphasizing the pieces of knowledge, illustrating the diverse source and extents of knowledge with practice. It also explained local, modern and the hybrid knowledge system with its past, present and future trend and potentiality with implementation of knowledge. The local knowledge dynamics portrayed the stance, structure and attributes of knowledge and nature of knowledge with recent diffusion process how it is connected to local way of life and conserve the interest of native people facing various societal and global constraints. This review provides a holistic idea of indigenous knowledge synthesizing the native phenomenon of farming, agriculture, horticulture, forestry, agroforestry, health, medicine and so on. It reveals the surrounding ecology and environment, how it is administered through local knowledge and practice, which is constructed on the basis of trial and error practice with prolong time.

Keywords: Knowledge; Indigenous Knowledge; Scientific Knowledge; Knowledge Taxonomies; Hybrid Knowledge and Knowledge Diffusion.

Introduction

Knowledge is concerned with issues such as, facts and information or craft acquired through education, training and experience. This is a process of understanding about a subject matter through concrete and conceptual actions. These actions could be systematic, formal and informal method of acquiring knowledge. Knowledge is a cognitive process through which perception, communication, association and reasoning are achieved (Cavell, 2002). Formal knowledge deals with how much sequential knowledge comes through experience and innate reasoning. Cognitive knowledge is related to

situated knowledge, practical, scientific and mystic knowledge (Puri, 2005). In fact, cognitive knowledge is the perception of the agreement/disagreement of ideas; it is the whole of what is known and resides in the intelligence and the competence of people (Ellen *et al.*, 2000). Knowledge is resulted from diverse information of subsystem of knowledge. It comes from making comparisons and connection with different conflicting back and forth experimental process of cognitive issues of sentient beings. It is dynamic as well as whose develop it they create and use it through filtering new information to demarcate what is useful (Warren, 1991). Information piece of knowledge, it is organized and shaped with surrounding context that has rationality and leads

one to know something about the world (Stoll *et al.*, 2003).

Thousands of years ago in human mind arose a lot of thoughts and ideas how to adapt to nature and make a comfortable life by encountering with diverse challenges. People employed their own intelligence and expertise knowledge to protect them from natural hazard practicing trial and error basis experiential knowledge. The action and experience of local people are the outcome of experiment; it is a source of knowledge, people develop it from different segment of knowledge domain and episode. Local knowledge construction, reconstruction and diffusion are happening through acquisition of knowledge such knowledge become complements to institutional knowledge with interaction of diverse origin of knowledge (Brodt, 2002). Human ideas with logical consequences have been providing a form of thought and knowledge that is prevalent among the local people as local knowledge. In one step fast have commonsense knowledge, which is taken-for-granted knowledge derived from human experience that is not a product of rigorous and systematic thought (Brokensha *et al.*, 1980). Indigenous knowledge is such a type of knowledge backed by nature and culture. Epistemology and ontology classify the incoherent knowledge as coherent knowledge, it designate the knowledge and affirm the branch of knowledge with meaningful knowledge.

Indigenous and local or commonsense knowledge comes from local peoples' ideas through their prolong experience and activities, which is communicated and classified by different school of thought, discipline and epistemology. Indigenous knowledge also belongs to one school of thought as local knowledge or traditional knowledge. It is now an expanding domain of study that pays attention to the ways of knowing, awareness, and thinking that are passed down through different traditional channels from generation to generation (Grenier, 1998).

These types of knowledge, information are the reflection of hundreds of year experimentation and development in different issues such as agriculture, animal husbandry, child rearing, education, medicine, natural resource management and so on. The above issues are related to local body of knowledge, which are important in a global era by considering indigenous knowledge as overall knowledge profile (Agrawal and Gibson, 1999). This knowledge supports to solve the basic life leading vexing problems. Indigenous knowledge is value-laden, not only for the culture in which it develops,

but also for scientists and planners seeking solutions to community problems (Thrupp, 1989).

Indigenous knowledge is contextual knowledge rooted in nature. It is not decontextual, disjointed, and reductionist nature of knowledge (Gandhi, 1982). Knowledge elements could extend over large areas and even cross national borders through transmission processes. Such type of knowledge is prevalent in Indian subcontinent including ethnoecological resource management and conservation. Many scholars agreed that indigenous knowledge has facilitated the unearthing in science, such as the development of science in India resulting from traditional knowledge and wisdom (Gandhi, 1982; Rao, 1985). In India, traditional skills, techniques, and rural craft knowledge provide a wide spectrum of knowledge, which cannot be fragmented. Therefore, it could be considered legalized local knowledge along with science to develop a strong and sustainable science (Agrawal, 1995; Shiva, 1997). However, it is assumed that indigenous knowledge is sprinkled and associated with low prestige rural life and even those who are holders of such knowledge may have been made to believe it is low-grade (Warren, 1989). Modernization and economic development have stricken the strictness of prevalent indigenous knowledge. The innovation of technical knowhow and its' diffusion threatens the survival valuable of indigenous knowledge among the local people, which change their behaviour, attitude, and modify their local bodies of knowledge (Chambers, 1983; Shiva, 1997; Thrupp, 1989). Recent scholarly observation shows that the indigenous knowledge becomes mixed and matched with scientific knowledge and that knowledge, such as modern agroforestry, which core elements resulted from shifting cultivation along with intercropping and multi-cropping system of indigenous people (Fox *et al.*, 2009). That practice come back to local people as development process and development model. This way indigenous knowledge is reshaping and restructuring to the contact of global science and have been eroding from the principal form indigenous knowledge day by day.

Methodology

The rationale behind the relation to knowledge dynamics, including indigenous knowledge, formal and global knowledge with its trend and prospective might not be comprehended simply through the study of specific disciplinary perspectives such as local

and global knowledge. So there is need to accumulate and combine knowledge taxonomies based on the multidisciplinary approaches. In addition, this paper is piece of an empirical study founded on review of literature, field work, researchers' academic knowledge and so on. Mostly this paper is made by secondary sources of information. In the paper, look into "Google Scholar" and USM university library data base were employed through the link-www.lib.usm.my to review pertinent literatures. Elicited important information on the perception of knowledge dynamics with local and scientific knowledge were organized by search of pertinent published papers on the internet. Title of the paper and vital key terms were employed to find published articles. The results of this paper are currently applied in the further stages of the research.

Stance of Knowledge

Knowledge is an abstract concept which understanding is base on belief, truth, and justification. Whoever possesses it, will be a powerful mentor. It is important especially with the environmental setting where people live. For an individual to know and understand knowledge, he/she has to know the concept of 'knowing'. Knowing is about how we know things, ideas, and phenomena systematically in an intuitive way. Naturalistic philosopher typically divides knowledge into three categories, personal knowledge, procedural knowledge and declarative knowledge (Bateson, 1987). Personal knowledge derives personally through understanding facts and information by perceiving or learning process. Procedural knowledge how to do something and declarative knowledge indicates to facts or information accumulated in the memory, which remain in around and describes materials, events with processes. The primary concern of epistemology is declarative knowledge. But, it differentiation with other types of knowledge can support precisely what epistemologists are discussing on declarative knowledge. However, the most popular knowledge theory is tripartite theory. This theory discusses knowledge as being justified with true belief (Russell, 1984). It claims that, knowledge requires absolute certainty, as opposed to belief or opinion about which there is more doubt.

The discussion of knowledge is a rational debate which has no single agreed definition. It is a complex cognitive process, it is related to perception, communication, association, and reasoning. Knowledge is related to knowing of earthly phenomena and human beings (Cavell, 2002).

Knowledge is a symbolic representation. It is communicated through symbols such as language and metaphor. Its representation can be viewed through ascription process, through which knowledge can be transfer (Ellen *et al.*, 2000). Knowledge does not exist in concrete shapes and difficult to confirm one's presentation as true. A naturalistic philosophical approach suggests these abstract representations become knowledge, when they bear some naturalistic relations to the state of affairs which they purport to represent (Puri, 2005).

There are diverse forms of knowledge in a cognitive science. Greene (1992) and Gruber (1989) review the standard model of knowledge and suggest that there are representational (structure) and functional distinction in knowledge which indicates declarative (verbalized) or procedural (tacit) knowledge. Declarative knowledge is substantive and experience oriented 'knowing that' language-based. Procedural knowledge is skill knowledge, behavioural knowledge and strategic knowledge which is identified as 'knowing how'. It argues that knowledge is diverse and associated with declarative or procedural structure in different form and content. Knowledge is learn and transmits from generation to generation through verbal instruction, for declarative knowledge, or imitation and experience, for tacit knowledge. On the other hand, procedural knowledge and its function are strategic and distinct based on skill and performance knowledge (tacit). The above types of conceptual knowledge can be simplified by the terms behavioural knowledge and performance knowledge.

Fredrik Barth (1995) asserts that culture be considered as knowledge, referring to what people employ to interpret and act on the world, feeling as well as thoughts, personified skills as well as taxonomies and other verbal models. The common abstraction of culture as an assemblage of customs as an integrated, locally shared way of life which can apparently homogenize, fastened and objectify people (Barth, 1995).

Indigenous Knowledge

Indigenous knowledge is concern with what people learn informal through relationship with local people who have experience in a particular phenomenon. This knowledge is also called trial and error base experiment. It could also be called procedural or performance knowledge. However, indigenous knowledge was procedural and craft skill at the time of origin and then later it transmits and develops from generation to generation as declarative

knowledge. But, the instant inevitability of life and thirst of knowledge further motivates indigenous people to practice trial and error base experiment for generating new knowledge. That knowledge incorporates with previous knowledge and enriches new knowledge. Indigenous knowledge is thereby constructed and it has a variety of terminologies, definitions and cognate concept.

There are a lot of terms in place of indigenous knowledge. The words we use are not insignificant whether we speak of 'indigenous knowledge' (IK), 'indigenous technical knowledge' (ITK), ethnoecology, 'local knowledge', 'folk knowledge', 'traditional knowledge', 'traditional environmental knowledge' (TEK), 'peoples' science', or 'rural peoples knowledge' (Ellen, 2000). These terms may be used equivalently with the subjective understanding of epistemological discipline. Indigenous knowledge refers to the unique, traditional local knowledge existing within and developed around the people in a particular geographic area (Ellen, 2000). The development of IK systems, cover all aspects of life including supervision of the natural environment, ethnobiology and ethnoecology. This type of knowledge systems is growing, creation of experience, careful observations and experiments (Grenier, 1998).

Indigenous knowledge is a continuous process as it gives space for improvements and innovation from within and outside in order to be up-to-date with reality (Grenier, 1998). Almost all communities have traditional knowledge based on gender, age, education, socio-economic status, experience that their people share. Moreover, indigenous knowledge emerges from the individual ability or expertise which shapes their social positions in society such as age, gender, etc. Indigenous knowledge is constructed through their practical activities (what they do), and their degree of acculturation into the broader world, as well as exposure to formal, informal and global training. In a broad sense, sometimes cultural factors including material and non-material culture are reflected in different shape as indigenous knowledge. It is typified knowledge which is constructed as long experience (Ellen, 2000). Indigenous knowledge is stored in people memories and activities and is expressed in stories, songs, folklore, proverbs, dance, myths, cultural values, beliefs, ritual, community laws, local language, taxonomy, agricultural practice, equipment, materials, plant species and animal breeds (Grenier, 1998).

Now-a-days some indigenous knowledge is lost physically as this practice of technique and tools are

outdated or modified. The recent rate of loss is increasing because of rapid population growth, development of international market, educational system, environmental degradation, rapid modernization and cultural homogenization (Brod, 2001).

All indigenous knowledge consists of integrated sub-system of knowledge. Indigenous knowledge practice, scope and its extent are well known to western scientists. Modern science takes it into accounts and tries to formulate it with new ideas and thought which is later incorporated in global knowledge. That knowledge comes back to indigenous people as development model, and prolong existing local knowledge become weaken or lose its rigidity of uniqueness of indigenous knowledge and get a new form as mixture knowledge (Brod, 1999). Though researchers and development workers draw out that, indigenous knowledge is learned, shared and diffused by the outsiders and merged into human health, animal and forestry, water, soil, agriculture, agroforestry and swidden agriculture and so on (Grenier, 1998).

Local Knowledge and Scientific Knowledge

Indigenous knowledge is the local knowledge or traditional knowledge which is close contact with nature, and cumulative body of knowledge, practices and beliefs held by local people (Turner and Berkes, 2006). In the widest sense, indigenous knowledge is considered as cultural knowledge or ethnoecological knowledge. This knowledge, is unique to a given culture or society (World Bank, 1997). Indigenous knowledge contrasts with the scientific knowledge; scientific knowledge is generated by universities, research institutions and private firms. On the other hand, indigenous knowledge is the basis for local-level decision making in natural resource management, and a host of other activities in rural communities (Warren, 1991).

According to Flavier *et al* (1995) indigenous knowledge is the information base for a society, which facilitates communication and decision-making. Indigenous information systems are dynamic, and are continually influenced by internal creativity and experimentation as well as by contact with external systems (Warren, 1991). Indigenous knowledge is passed down from generation to generation, in many societies by word of mouth. Such knowledge has inherent values, which evolves within culture, scientists and planners are striving to improve it condition in rural localities (Ellen, 2000; Warren, 1991).

Indigenous knowledge encompasses the cultural traditions, values, beliefs, and worldviews of the local peoples as distinguished from Western scientific knowledge. This type of local knowledge is the output of indigenous people's direct experience. It is the product of the workings of nature and its relationship with the social world. It is a holistic and inclusive type of knowledge (Dei, 1993). On the other hand, scientific is isolated and objective. Indigenous knowledge is related to nature and practices relating to food, medicine, agriculture, home gardening, handicrafts and other skills developed to sustain the local population (Turner, 2005).

Indigenous knowledge and biocultural diversity are interwoven with each other; it's inherent essential components protect balance ecosystems (Agrawal and Gibson, 1999). Indigenous knowledge is important in relation to learning and conservation to protect biocultural diversity, though it is eroded due to socio-political changes (Berkes and Berkes, 2009; Turner and Turner, 2000). Diverse communities in northeast India are dominated by indigenous knowledge including *jhum* (shifting cultivation) and agricultural subsistence economy. Women are the major stakeholders and custodians of indigenous knowledge, conserving food and plants in both *jhum* land and home gardens (Singh, Pretty, and Pilgrim, 2010). *Uttarkhan* in India, women's roles is observable; they are very intimate with nature to protect their forest and tree resources from the logger. But, women are rarely recognized at policy level due to men patriarchal ideology in local power structure. Even in central policy level local people and indigenous institutions are not accounted (Agrawal and Gibson, 1999; Ramakrishnan, 2005).

The incorporation of indigenous knowledge through research project may achieve local empowerment and development, escalating self-reliance and underpinning self-determination. Utilizing indigenous knowledge into research project and management plans gives it legitimacy and reliability insight of local people and outside scientists. Using such knowledge extends cultural pride and motivates them to solve local problems with variability in nature (Thrupp, 1989). Researchers and development specialists might design approaches for strengthening appropriate indigenous knowledge.

Indigenous people are representative of local environment; they provide valuable information about environment how effectively they manage natural resources. The recent world wide ecological crisis interests outsider in an indigenous knowledge system due to the overexploitation of natural

resources based on inappropriate way and technologies. Scientists recognize that indigenous people are habituated to live for generations, and manage the environment without massive damaging local ecologies (Emery, 1996).

Style of Indigenous Knowledge as Discourse

Indigenous knowledge may in fact integrate with scientific knowledge by providing practical experience and responding to ecosystem changes. However, the "language" of traditional ecology is different from the scientific and generally includes "metaphorical imagery and spiritual expression, signifying differences in context, motive, and conceptual underpinnings" (Berkes *et al.*, 1998). Indigenous technologies and know-how have distinctiveness over science but they rely on local skills and materials and are often more cost-effective than introducing exotic technologies from outside sources (International Institute of Rural Reconstruction [IIRR], 1996). Local people used indigenous knowledge that does not need specialised training to conserve ethnoecological environment. Indigenous knowledge is comprised of surrounding social responsibility, respect of nature, diverse production system and well balanced resource exploitation (DeWalt, 1994).

Indigenous knowledge is based on unique epistemologies, philosophies, intuitions, and principles which are separate from scientific methods. A few cultural intuitions are related to mystic beliefs or religious ideas about spirits or ancestral ghosts which are normally inconceivable to western scientists. According to Rappaport's (1968) classic analysis of ritual of New Guinean natives that in all aspects, local knowledge is a dynamic body of wisdom, but instead, usually not consists of static insights and techniques which are altered diachronically through experimentation and adaptations to socioeconomic and biophysical milieu changes.

Numerous analysts have discussed indigenous knowledge as backward, conservative, and inefficient knowledge based on ignorance or myths. In this view, it is supposed that native peoples are stupid and savage. This tradition should be discarded in the development process, and changed by new foreign efficient technologies. The insulting observation of indigenous people is created by colonial scientists, missionaries, and early explorers to compare them as out of progress and civilization. Social Darwinism strengthened the views of the need to convert and improve the uncivilized savages

(Thrupp, 1989). However, progressive social science analysts recognized farmers' "ignorance" in western technologies is not a matter of "stupidity", but it is verily an expression of poverty, social disparity, and inaccessibility to resources (Chambers and Ghildyal, 1985; Chambers *et al.*, 1989).

There is a variation of discussion, sharing, and accession of knowledge with scientists. Knowledge is a source of power and privilege, that sense is pertained to indigenous peoples. They may obscure accepted information from strangers and even from other community people as secrets knowledge, whereby certain people can control over esoteric knowledge than others. Such type of knowledge confidentiality is found in Eastern Kenya among the native people about plants and seeds knowledge (Juma, 1989). Particularly, elder members of this tribe hide this knowledge and claim his own distinct position.

Indigenous peoples are some time called noble savages (Kalland, 1994); their ethnoecological knowledge usually practices surrounding ecology and environment. They present a way of life with the requirements of local conditions.

Their production is for subsistence base, what is required for instant survival is collected from the environment. Indigenous peoples act as an environmental justice, they emphasis on multiple production system without considering overexploitation of a single resource (De Walt, 1994). Indigenous knowledge incorporates outside knowledge and also accounts conservation ethic, maintain social responsibility to protect community ties including nature and culture.

Diffusive Mode of Indigenous Knowledge and Instances

Indigenous knowledge acquisition and learning is basically a local process which is based upon local opportunities, resources, and constraints for practical experience and observation. It is also working within particular political and economic context to transform such knowledge in continual processes of adaptation (Seeland, 2000). Local people asserted that they had learned everything as their inner pressure through their own experience. A lack of knowledge is due to a lack of experience. Indigenous peoples emphasis on personal experience with wide variation in knowledge which indicates experimental knowledge. This knowledge is combined with other observation that forms the central matrix into which outside information is incorporated (Brodt, 2002).

The north-eastern region of India, Meghalaya state has three major tribes, namely Garo, Khasi and Jaintia. The north-eastern part of Bangladesh is also mainly living the Khasi tribe whose depend primarily on agriculture and forest resources for their survival. This community raises domestic animals, undertakes fishes and practice intercropping and multi-cropping system with agriculture and horticulture (fruit-bearing trees) including long-duration paddy. This kind of farming system is performed following indigenous knowledge which is learned, shared, and diffused among them through observation and experience. The women in this region are major custodians of such knowledge and biocultural resources (Singh *et al.*, 2010)

Elderly women have positive attitudes towards traditional knowledge than younger women, and could therefore be a source of inspiration for learning indigenous knowledge and biocultural resources (Swaminthan, 1998; Turner, 2005). They are highly attached with cultural ethics. Gender specific roles and responsibilities including attributes of indigenous knowledge are observed within communities (Mishra *et al.*, 2009). Socio-cultural background, age and interaction of local communities with their surrounding natural resources affect the learning of indigenous knowledge. For instance, Khasi indigenous elders hold more traditional knowledge than younger generation on the basis of inherited prolong experiences (Agrawal and Gibson, 1999; Singh *et al.*, 2010).

Surrounding natural setting is the giant master to teach any lesson in crisis moment to the native people. The late 1970's and early 1980's-, the international scientific community became anxious about ecological degradation and deforestation - that a few scientific researchers unexpectedly uncovered that local farmers' have traditional tree-planting practices. On the other hand, the scientist emphasis on tree-planting and mixed cropping system, they coined the term as "agroforestry" systems, polycultures, and agroecological system. The scientists did a systematic study to formalize the traditional practices. Therefore it can be assumed that "agroforestry" concept comes from traditional knowledge which is now considered as technical packages. It has been learned through the historical and cultural process and agrosociologists want to use, transfer or sell such packages to the farmers.

Recent Trend of Indigenous Knowledge

Indigenous knowledge including biodiversity and cultural diversity are threatened with extinction. The

wider social, economic, and political forces might erode indigenous knowledge. These types of outer forces may influence indigenous knowledge to be integrate with global knowledge. Local peoples' long sustaining social structure, indigenous knowledge and practices are broken down through the striking of modern world economy. In fact, the expansion of modern economy, the impact of modern education and the implementation of various development processes are motivating and leading strongly to the 'homogenization' of global culture (Grenier, 1998). Consequently, indigenous beliefs, values, customs, know-how, and practices some extents are being transformed into mixture knowledge.

Many scholars are worried that modernization threatens indigenous resource management systems and the survival valuable of indigenous knowledge of farming, agriculture, animal husbandry, child rearing practices, education systems and medicine (Gadgil *et al.*, 1993; Gupta, 1996, Guha, 1997; Shiva, 1997). Scientific knowledge and forces invade indigenous knowledge through different channels and soften the rigidity of local knowledge paradigm in term of development thought. The interaction and interdependency of indigenous knowledge systems with global knowledge is the major cause of shortage of natural resources with overexploitation. Anthropologists, social scientists and researchers have deep attention towards indigenous knowledge to know how it is modified in overall in terms of global aspect. They are anxious to know the degree of connectivity and adaptability that remains between indigenous knowledge and global knowledge.

Local community people's knowledge is being shaped by political and economic aspects. Their way of life is influenced by globalization as well as western culture. Moreover, traditional insights may be modified with the impact of "external" ideas and technologies because the nature of socioeconomic and technical perspective is changed. This changing pattern creates diverse problems, hurts indigenous knowledge, and thereby reshaped or lost local knowledge with the growing dominance of western scientific principles (Rhoades, 1984; Richards, 1979). Most marginalized indigenous people are unable to access global resources, information, and technologies due to socioeconomic constraints or inequities though having its potential benefit. However, for local necessities local people optimally mixed "old" and "new" ideas in local knowledge dynamics through development processes (Rhoades, 1984).

In present day, for various reasons, indigenous knowledge is going to demise because local

techniques and tools are not used firmly. The effects of modernization and scientization are noticed all spheres of life. Traditional Knowledge is being lost due to the disruption of traditional channels of oral communication, changing lifestyle; the breakdown of traditional family and community networks. Due to this, indigenous knowledge is lasting less strictly in the community with facing various problems such as abusing, theft, and stealing (Grenier, 1998). Now from global aspect due to environmental degradation, it is indispensable to prevent indigenous knowledge from further loss to ensure sustainable environment with the subsistence economy, natural resources, and local people. The organized grassroots activities and strategies may increase the promotion of indigenous knowledge and conservation of biocultural resources. Such approach may be helpful to prevent knowledge erosion and revitalize indigenous knowledge (Singh, *et al.*, 2010).

Weakness and Misconceptions of Indigenous Knowledge

All categories of knowledge systems have their limits and weakness, in the same way indigenous knowledge is not excluded of it. It is sometimes accepted uncritically due to naïve notions. It is thinking that whatever indigenous people do have general features in harmony with the environment. Some contemporary facts indicate that indigenous peoples have committed environmental sin through over exploitation of natural habitat. It is ambiguous to think of indigenous knowledge as always being 'sustainable'. Indigenous people are well experienced about specific local natural condition, while the local people migrate to a quite different ecological zone that time indigenous knowledge may support or may not support with the new natural setting. In this situation, need to evaluate the relevance of different kinds of indigenous knowledge to local conditions.

Sometimes indigenous knowledge is well adapted and effective for earning a livelihood in a particular environment. It becomes unsuitable under conditions of environmental degradation (Thrupp, 1989). However, indigenous knowledge system is flexible in adapting to ecological change. When this change is particularly swift, the knowledge association with them may be provided inappropriate and possibly damaging in the altered conditions (Grenier, 1998). Indigenous peoples in some extent - nomadic hunter and gatherers may mismanage natural resources, who are not tied to any specific resource base may not have a conservation ethic (Gadgil, Berkes, and Folke, 1993). Lastly an observed aspect of indigenous

knowledge should take into consideration that, indigenous knowledge unlike scientific knowledge that local knowledge people depend on, is wrong or even harmful (Thrupp, 1989). Often, indigenous knowledge practice is based on mistaken beliefs, faulty experimentation, or incorrect information that can be terrible and be an obstacle to improving the betterment of indigenous people (Thrupp, 1989).

Conclusion

Indigenous knowledge, including general knowledge, expertise and craft knowledge with common sense knowledge are discussed to generalize the overall knowledge systems. It is practiced to develop the local and global peoples' way of life understanding the viability of nature. These diverse sources of knowledge emphasize on farming, forestry, agriculture, health and medicine to protect surrounding ecology and environment without overexploitation of natural resources. Recently, global and environmental changes are viewed by environmentalists, development activists as well as stakeholders with nation-States, and they unanimously agree to the positive implication of indigenous knowledge how to use it by merging with scientific knowledge. Modern scholars and state authorities give priority on understanding indigenous knowledge to the combination of local and global knowledge as mixed knowledge system, which could play a vital role to the development process of individual, state and government. To achieve these purposes loosely dichotomized combined (local and global) knowledge is being advocated and have understood the stance, style and trend of indigenous knowledge as having misconception of local knowledge.

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