

## DEFINITIONS OF TRADITIONAL KNOWLEDGE

*This is a compilation of various definitions of 'traditional knowledge' and other terms that are often used in an overlapping or interchangeable manner. The intention of this compilation is to provide an impression of the diversity of ideas surrounding the terms, as well as to provide resources for parties to reach their own conceptions of traditional knowledge and its place in the forest sector.*

“TEK is a cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment. Further, TEK is an attribute of societies with historical continuity in resource use practices; by and large, these are non-industrial or less technologically advanced societies, many of them indigenous or tribal” (Berkes 1993:3).

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“Traditional environmental knowledge is a body of knowledge and beliefs transmitted through oral tradition and first-hand observation. It includes a system of classification, a set of empirical observations about the local environment, and a system of self-management that governs resource use. Ecological aspects are closely tied to social and spiritual aspects of the knowledge system. The quantity and quality of TEK varies among community members, depending upon gender, age, social status, intellectual capability and profession (hunter, spiritual leader, healer, etc.). With its roots firmly in the past, TEK is both cumulative and dynamic, building upon the experience of earlier generations and adapting to the new technological and socioeconomic changes of the present” (Dene Cultural Institute 1995 in English translation, quoted in Stevenson 1996: 281).

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“TEK could be characterized as the knowledge claims of those who have a lifetime of observation and experience of a particular environment and as a result function very effectively in that environment, but who are untutored in the conventional scientific paradigm . . . . TEK is not privileged or secret knowledge in the way that certain other cultural phenomena, such as ritual, healing, or spirituality, may sometimes be.” (Usher 2000: 186-189)

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“Indigenous knowledge is the essence of the identities and world views of Indigenous peoples. Traditional knowledge constitutes the collective heritage and patrimony of Indigenous peoples. Therefore it is priceless to us, and its value cannot be calculated for economic exploitation.” (International Indigenous Forum on Biodiversity 2003: Item 7)

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“Traditional Knowledge involves the practices of the Elders and is based upon customary law. The essence of TK is found in the language of the people. . . . [TK includes, among other elements:] ceremonies, language, teachings, dance & drum, hunting, housing, planting, harvesting, arts and crafts, storytelling, technology, governance, sacred sites, songs.” (Centre for Traditional Knowledge, nd)

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“Traditional knowledge refers to the knowledge, innovations and practices of indigenous and local communities around the world. Developed from experience gained over the centuries and adapted to the local culture and environment, traditional knowledge is transmitted orally from generation to generation. It tends to be collectively owned and takes the form of stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local language, and agricultural practices, including the development of plant species and animal breeds. Traditional knowledge is mainly of a practical nature, particularly in such fields as agriculture, fisheries, health, horticulture, and forestry.” (Convention on Biological Diversity, 2006:n.p.)

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“[Indigenous knowledge] includes the cultural traditions, values, beliefs, and worldviews of local peoples as distinguished from Western scientific knowledge. Such local knowledge is the product of indigenous peoples’ direct experience of the workings of nature and its relationship with the social world. It is also a holistic and inclusive form of knowledge.” (Dei 1993:105)

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“[I]ndigenous knowledge is an important natural resource that can facilitate the development process in cost-effective, participatory, and sustainable ways (Vanek, 1989; Hansen and Erbaugh, 1987). Indigenous knowledge (IK) is local knowledge – knowledge that is unique to a given culture or society. IK contrasts with the international knowledge system generated by universities, research institutions and private firms. It is the basis for local-level decision-making in agriculture, health care, food preparation, education, natural resources management, and a host of other activities in rural communities. Such knowledge is passed down from generation to generation, in many societies by word of mouth. Indigenous knowledge has value not only for the culture in which it evolves, but also for scientists and planners striving to improve conditions in rural localities.” (Warren 1991:1)

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“Traditional knowledge had many definitions but the central theme consisted of cultural beliefs and traditions being passed on from their forefathers to the present generation for the purpose of survival while still living in harmony with the ecosystems. Traditional knowledge is something that is learned during a lifetime and realizes the interconnectedness of the trees, soil and water.” (Hiebert and Van Rees 1998:3)

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“The GNWT [Government of the Northwest Territories] policy defines traditional knowledge as ‘[k]nowledge and values which have been acquired through experience, observation, from the land or from spiritual teachings, and handed down from one generation to another.’ ” (Abele 1997:iii)

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“Traditional Ecological Knowledge is a body of knowledge built up by a group of people through generations of living in close contact with nature. Traditional Knowledge is cumulative and dynamic. It builds upon the historic experiences of a people and adapts to social, economic, environmental, spiritual and political change. The quantity and quality of Traditional Knowledge differs among community members according to their gender, age, social standing, profession and intellectual capabilities. While those concerned about biological diversity will be most interested in knowledge about the environment, this information must be understood in a manner which encompasses knowledge about the cultural, economic, political and spiritual relationships with the land (Brockman and Legat, 1995). ‘It provides a distinctive worldview of which outsiders are rarely aware, and at best can only incompletely grasp’ (Greaves 1996).” (Brockman and others 1997:n.p.)

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“Aboriginal traditional knowledge is based on direct experience, testing, observation of patterns over long periods of time, and teachings and recording in the collective memory through oral tradition, storytelling, ceremonies and songs. Its validity is demonstrated by the survival techniques that have been successfully used by countless generations of Native Americans. it does not, therefore, need to be authenticated by using the criteria of modern occidental science.” (Augustine n.d.)

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“A host of definitions contain some reference to the fact that traditional knowledge is handed down through the generations, can be acquired through first hand experience, has a spiritual component, is dynamic and evolving, etc. While there is a near universal agreement that Aboriginal elders and people closest to the land have more TK than younger Aboriginal people, such definitions fail to consider that TK exists within a larger system of understanding and cultural context from which it cannot and should not be separated.” (Stevenson 1998:n.p.)

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“... [W]hat is ‘traditional’ about traditional knowledge is not its antiquity, but *the way it is acquired and used*. In other words, the social process of learning and sharing knowledge, which is unique to each indigenous culture, lies at the very heart of its ‘traditionality’. Much of this knowledge is actually quite new, but it has a social meaning, and legal character, entirely unlike the knowledge indigenous peoples acquire from settlers and industrialized societies. This is why we believe that protecting indigenous knowledge necessarily involves the recognition of each

peoples' own laws, and their own processes of discovery and teaching.” (Four Directions Council 1996:5; emphasis in original)

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“Traditional environmental knowledge (TEK) is generally defined as the body of knowledge built up by a group of people through generations of living in close contact with nature. It includes a system of classification, empirical observations about the local environment, and certain rules and views that affect resource use.” (Beverly-Qamaniruaq Caribou Management Board 1996:s1.7)

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“The indigenous people of the world possess an immense knowledge of their environments, based on centuries of living close to nature. Living in and from the richness and variety of complex ecosystems, they have an understanding of the properties of plants and animals, the functioning of ecosystems and the techniques for using and managing them that is particular and often detailed. In rural communities in developing countries, locally occurring species are relied on for many – sometimes all – foods, medicines, fuel, building materials, and other products. Equally, people’s knowledge and perceptions of the environment, and their relationships with it, are often important elements of cultural identity.” (Mayor 1994 cited in Emery 1997:4)

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“Numerous terms have been coined to describe Aboriginal forest-based ecological knowledge, including ‘traditional ecological knowledge,’ ‘indigenous knowledge,’ ‘indigenous science,’ and ‘naturalized knowledge systems.’ These terms refer to the knowledge that Aboriginal peoples have accumulated over countless generations of intimate contact with all aspects of local ecosystems, including plants, animals, and other natural phenomena.

Jameson Brant, a Mohawk working with the Cree and Ojibway of the northern boreal forest in Ontario, describes this knowledge as:

*a body of information about the interconnected elements of the natural environment which traditional Indigenous people have been taught, from generation to generation, to respect and give thanks for.*

The vast majority of indigenous peoples throughout the world live in forested regions. Their accumulated knowledge of forest ecosystems is the result of their sustained use of forests for a variety of life-sustaining and cultural purposes, including: food (hunting, fishing, and gathering), clothing, shelter, construction materials, craft materials, medicine, pigments, tobacco substitutes, ceremonial products, tools and transportation.” (NAFA 1996:6)

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“Traditional Ecological Knowledge (TEK): An accumulated body of knowledge that is rooted in the spiritual health, culture, and experiences of those who are close to the lands. It is based on an

intimate knowledge of the land, its physiographic and natural features, climate, and wildlife, and the relationships between all aspects of the environment. Although in many uses it refers to knowledge of Indigenous peoples, others with intimate knowledge and experience of the land also have developed traditional ecological knowledge. (FSC Canada 2004:144)

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“**Traditional knowledge:** Includes, but is not limited to knowledge of:

- **local** behaviour, distribution or cycles of fish, wildlife and plant life;
- broader climatic changes or cycles;
- local **ecosystem** or geomorphologic responses to natural or human disturbances;
- **local** population densities or changes in fish and wildlife;
- qualitative information about the utility of a variety of medicinal, edible, or material resource plants;
- requirements or activities needed to maintain or enhance local **ecosystems.**” (FSC Canada 2003:41; emphasis in original)

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“The following list of characteristics of traditional ecological knowledge is adapted from the research and writings of Clarkson et al. (1992); Berkes (1993); Doubleday (1993); Tyler (1993); Wavey (1993); Mitchell (1994); and Cole (n.d.). The list incorporates a non-indigenous view of traditional ecological knowledge but is based on discussions with, input from, and writings by indigenous people. Traditional ecological knowledge is:

- *Holistic*: all things are interconnected and nothing is comprehended in isolation;
- *Intuitive*: based on deeply held holistic understanding and knowledge;
- *Qualitative*: knowledge is gained through intimate contact with the local environment, while noting patterns or trends in its flora, fauna, and natural phenomena. It is based on data collected by resource users through observation and hands-on experience;
- *Transmitted intergenerationally by oral tradition*: teaching is accomplished through stories and participation of children in culturally important activities;
- *Governed by a Supreme Being*: the Creator defines a moral universe with appropriate laws;
- *Moral*: there are right ways and wrong ways to relate to the environment;
- *Spiritual*: rooted in a social context that sees the world in terms of social and spiritual relations among all life forms. All parts of the natural world are infused with spirit. Mind, matter, and spirit are perceived as inseparable. Traditional ecological knowledge, in practice, exhibits humility and a refined sense of responsibility; it does not aim to control nature;
- *Based on mutual well-being, reciprocity, and cooperation*: these promote balance and harmony between the well-being of the individual and the well-being of the social group;
- *Non-linear*: views time and processes as cyclical;

- *Often contextualized within the spiritual*: may be based on cumulative, collective practical and spiritual experience. Traditional ecological knowledge may be revised daily and seasonally through the annual cycle of activities (as required);
- *Communal*: general knowledge and meaning are shared among individuals horizontally, not hierarchically; and
- *Promoting of stewardship*: takes a proactive approach to environmental protection and an ecosystem approach to resource management.” (Clayoquot Sound Scientific Panel 1995:14)

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“International IP [intellectual property] standards typically defer to the national level for determining the precise scope of protected subject matter. The international level can range between a description in general terms of eligible subject matter, a set of criteria for eligible subject matter, or no definition at all. For example, the Paris Convention and the TRIPS Agreement do not define ‘invention.’ The Paris Convention defines ‘industrial property’ in broad and expansive terms. This provision takes a comparable approach which recognizes the diverse definitions and scope of TK that already apply in existing national laws on TK, and does not seek to apply one singular and exhaustive definition. Guided by existing national laws, however, this provision clarifies the scope of TK in a descriptive way. Its wording draws on a standard description that has been developed and consistently used by the Committee, which was based in turn on the Committee’s analysis of existing national laws on the protection of TK. In essence, if intangible subject matter is to constitute traditional knowledge for the purposes of these provisions, it should be ‘traditional,’ in the sense of being related to traditions passed on from generation to generation, as well as being ‘knowledge’ or a product of intellectual activity.” (WIPO 2005:n.p.)

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“Traditional ecological knowledge (TEK) – or sometimes referred to as traditional environmental knowledge – is often described as local and holistic, integrating the physical and spiritual into a worldview or ‘cosmovision’ that has evolved over time and emphasizes the practical application of skills and knowledge. TEK is the product of careful observations and responses to ever changing environmental and socio-economic conditions: as we now know, adaptation is the key to survival . . . .

. . . . TEK can also be viewed as a system of self-management, an extremely valuable source of environmental information that allows indigenous or other isolated native communities to protect and preserve their way of life. It is the basis for local decision-making in agriculture, hunting and gathering, nutrition and food preparation, resource management, education and health as well as social, economic, and political organization. This is now recognized as ‘the inextricable link between cultural and biological diversity’ (1988 Declaration of Belém) . . . .

. . . . Fikret Berkes (1999) considers four interrelated levels within TEK which he terms the knowledge-practice-belief complex: the first includes knowledge based on empirical observations essential for survival (species taxonomy, distribution, and life cycles); the second focuses on the understanding of ecological processes and natural resource management (practices, tools, and techniques); the third is the socio-economic organization necessary for

effective coordination and cooperation (rules and taboos); and the fourth is referred to as the worldview or ‘cosmovision’ (religion, belief, and ethics). . . .

. . . . Lastly, it is important to realize the important role of language in the transmission of TEK, the vehicle by which taxonomic systems, metaphysical perceptions, and codified knowledge are passed from generation to generation. Thus, in order for TEK to survive (and prove itself useful in the modern world) so must the language to which it is intricately linked. Although the TEK community is beginning to recognize ‘the inextricable link between cultural and biological diversity’, linguistic diversity is often not on the agenda of many global forums.” (Indigenous Peoples’ Restoration Network 2006:n.p.)

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“Western science has been defined as a systematic approach, a methodological approach to answering questions. Science is equated with knowledge, and it is the development of knowledge that promotes the solution of problems. The ‘western’ scientist knows that science is based upon the principles of repeatability and predictability. In terms of the northern experience, science also equates to traditional knowledge, and southern scientists must never forget that traditional knowledge is science.” (Hobson 1992:n.p.)

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