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**Cultural indicators of Indigenous Peoples'
food and agro-ecological systems***

by
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Quotations highlighting the close relationship between culture and Indigenous Peoples' traditional food systems

Gathered from Indigenous Peoples during the 2nd Global Consultation on the Right to Food and Food Security for Indigenous Peoples (Nicaragua, 7-9 September 2006).

“We would rather become extinct than lose our traditional food sources.”

“We are the land and the land is us.”

“To destroy the land is to destroy the people.”

“We are not the owners of land. We are the guardians.”

“The death of a traditional food system is the death of a nation...physically and culturally. We can and must protect and restore practices that can make us healthy and well as indigenous people.”

“If we are hungry, we do not just want to kill the hunger by eating three plates of food or eating the wrong quality of food. Our way of living and health are inextricably linked with our food and spirituality.”

“Trees are our brothers and sisters. We are of the same genealogical branch. When you understand this, you can understand what deforestation means for our well being.”

“Poverty is the lack of self-determination. Success is having the knowledge and skills for survival. The wealthiest among us are those that give the most and only take what they need. Life has its own spirits and humans, as part of creation, must respect those spirits.”

Executive summary

Purpose: The purpose of the paper is to contribute to the development, collection and use of cultural indicators of Indigenous Peoples' food and agro-ecological systems for policy, planning and advocacy purposes.

Audience: The intended users of this paper are Indigenous Peoples' Organizations (IPOs), Government departments responsible for data collection and statistics, UN agencies, NGOs, and other development actors.

Process of preparing the paper: Indigenous Peoples have expressed growing concern in international forums that most development planning aims to maximize economic development and rarely takes into account the reciprocal culture-land/resource relationships that are fundamental to Indigenous Peoples' food and livelihood systems and their well-being. These issues were taken up by the Indigenous Peoples' Consultation on the Right to Food: A Global Consultation (17-19 April 2002, Sololá, Guatemala). Organized by the International Indian Treaty Council (IITC) with support from FAO, the Consultation addressed the issue of cultural indicators within the context of Indigenous Peoples' right to food. In follow-up, with support from the FAO SARD Initiative, the IITC conducted a questionnaire survey in 2003-2004 to determine Indigenous Peoples' own views on cultural indicators, and the concerns they should address related to Indigenous Peoples' livelihoods, cultures, health and well-being, with a focus on the relationship between traditional cultural practices and food systems. In 2005, the Fourth Session of the Permanent Forum on Indigenous Issues also contributed to the collaborative work of the IITC and the FAO SARD Initiative in identifying priorities and developing criteria and methodologies for cultural indicators of food and agro-ecological systems that reflected Indigenous Peoples' perceptions of their situation and experiences. Based on the survey, a literature review and subsequent discussions, eight indicator categories were proposed for discussion at the 2nd Global Consultation on the Right to Food and Food Security for Indigenous Peoples (7-9 September 2006, Bilwi, Puerto Cabezas, Nicaragua). The Consultation was coordinated by the IITC and supported by the FAO-facilitated SARD Initiative with funding from the Government of Norway and the Christensen Fund. The executive summary of this paper was presented in draft form at the Consultation. An additional three indicator categories were also agreed upon by consensus, bringing the total to eleven. These were then consolidated at the Consultation into five main areas (see Appendix tables 1-3). This paper was subsequently revised, taking into account decisions made at the Consultation and peer-review comments on the draft.

Main issues: Globally, there are some 370 million Indigenous Peoples representing at least 5,000 different linguistic groups in more than 70 countries. Indigenous Peoples comprise about 5.5 percent of the world's population, yet they are disproportionately represented among the poor and food insecure, in both developed and developing countries. Indigenous Peoples' relationship with their traditional lands and territories forms a core part of their identity and spirituality and is deeply rooted in their culture, language and history. Since land and its resources form the basis of Indigenous Peoples' subsistence activities, losing control of these undermines their food and livelihood security and can threaten their survival as peoples. Furthermore, Indigenous Peoples' overall health, well-being and cultural continuity are directly related to their ability to eat traditional foods and continue their traditional food practices. These traditional foods and food practices are deeply intertwined with their cultures and value systems, and play an important role in religious ceremonies and spirituality, as well as in songs, dances and myths. While their agro-ecological and food systems offer some signs of resilience and adaptation, a range of factors are increasingly threatening these systems and Indigenous Peoples' well-being.

The development of, and agreement on, a set of indicators which are able to measure impacts, relationships and interactions between culture and food and agro-ecological systems, can promote improved understanding, transparency and accountability between Indigenous Peoples and those working to assist and support them. Specifically, they are helpful to:

- Enable indigenous peoples to monitor the impacts of some key trends and development interventions on their lives;
- Assist public services, development practitioners, governments, NGOs and UN agencies to understand, recognize and respect dimensions of Indigenous Peoples' livelihoods that are important for them;
- Provide decision-makers with the key facts regarding the cultural dimensions of Indigenous Peoples' food and agro-ecological systems that are essential for sound and appropriate policy design;
- Ensure consistency between activities, goals, outcomes and a minimum acceptable standard in the policies and programmes that are intended to benefit Indigenous Peoples, ultimately forming the basis of a more rights-based, culturally-respectful partnership model for development;
- Ensure legitimacy and accountability to all stakeholders by identifying good practices, facilitating lesson-learning as well as measuring progress and achievements.

The paper reviews Indigenous Peoples' rights, including their right to food, as enshrined in various UN Declarations, Conventions and Covenants, and summarizes the current work undertaken by UN and some other international organizations as well as some national agencies in using cultural and related indicators that are being or could be applied to Indigenous Peoples. A modified version of the Sustainable Livelihoods framework is proposed as a tool for understanding the relationships between culture and food and agro-ecological systems and the ways these interact with the natural environment and the policy and institutional context to influence livelihood, food security and well-being outcomes.

The indicator areas and main findings: The substantive discussion that forms the core of the paper (chapter 5) addresses the five consolidated indicator areas (the original eleven areas are also discussed under the appropriate consolidated indicator area). Evidence from the literature highlighted the following issues for which cultural indicators to assess trends and impacts on Indigenous Peoples already exist (but may need to be more widely used) or need to be developed:

1. Access to, security for and integrity of lands, territories, natural resources, sacred sites and ceremonial areas used for traditional food production, harvesting and/or gathering and related cultural and ceremonial purposes. The 2007 UN Declaration on the Rights of Indigenous Peoples and the 1989 ILO Convention No. 169 call on states to respect indigenous lands and territories and proclaim the right of Indigenous Peoples to control their natural resources. Security of tenure, which is crucial to Indigenous Peoples' cultural identity and well-being, can be enhanced through recognition of customary tenure rules and practices. Common property regimes provide a basis for shared identity and livelihoods and have been found to contribute to the health status of communities. However, land privatization, titling and registration programmes can have negative impacts on tenure security and environmental management. Privatization or the granting of concessions by governments or even by Indigenous Peoples themselves to commercial enterprises for logging, mineral and oil exploitation, hydro-electric dams, plantations or designation as national parks frequently destroys their traditional food and agro-ecological systems and their cultural identity. At the same time, they are often deprived of any compensation. Although the right to self-determination is recognized in the UN Declaration, Indigenous Peoples are rarely consulted during the design of land or water development or conservation programmes or invited to participate in co-stewardship management arrangements. The introduction of individualized land holdings in indigenous areas, forced resettlement, compensation, registration of household heads for taxation or benefit-sharing purposes, and the availability of jobs in extractive industries have all tended to favour men over women. The result has been a marked erosion of indigenous women's rights and resulting poverty and loss of status. Finally, Indigenous Peoples' access to sacred sites in their traditional territories is important for the continuation of their cultural practices. Sacred sites are preserved and maintained through culturally-based traditional management practices that protect certain species and habitats and mitigate environmental disturbances such as

floods, droughts and fires. In some areas, however, traditions of maintaining ancient sacred sites are being eroded, leading to the loss of biodiversity.

2. Abundance, scarcity and/or threats to traditional seeds, plant foods and medicines, and food animals, as well as cultural practices associated with their protection and survival. The protection and sustainable management of biodiversity represent an integral part of risk avoidance mechanisms in indigenous societies. Most traditional food systems of Indigenous Peoples contain at least 70-100 species of traditional food plants. The Convention on Biodiversity (CBD) recognizes that traditional and direct dependence on renewable resources and ecosystems, including sustainable harvesting, continues to be essential to the cultural, economic and physical well-being of Indigenous Peoples and their communities. However, development does not necessarily erode traditional ecological knowledge as many societies are able to incorporate market-oriented production within their traditional resource management systems. Nonetheless, there is concern that the use of genetically modified (GM) seeds could undermine the livelihoods of Indigenous Peoples. Genetic Use Restriction Technologies (GURTs), colloquially known as ‘terminator seeds’ could lead to: the possible loss of local crop varieties, locally-adapted genetic material and wild relatives; the displacement of traditional farming systems and the social, cultural and spiritual dimensions associated with these, including the storage, exchange and cultural uses of seeds and seed-bearing plants; and limits on the rights and prerogatives of indigenous and local communities with regard to traditional knowledge and community cultural values. Currently, there are insufficient data on the impact of GURTs on agricultural biodiversity and key ecosystem functions thus, in the meantime, the precautionary principle should apply. The destruction of forest cover, wetlands and other uncultivated areas for pastures or cultivation can also lead to a decline in agricultural biodiversity through the loss of ‘wild’ relatives of crop plants, birds, fish and livestock breeds. Cash cropping systems based on monocultures may increase economic productivity for large farmers but may prove inefficient in the long term with pest infestation or as environmental conditions fluctuate. This is where time-tested traditional crops may in some cases be the most suitable for local ecological conditions. Finally, there is concern that the WTO Agreement on Agriculture (AOA) has allowed the entry of cheap agricultural imports into indigenous communities, undermining local production and their associated integrated and ecologically balanced agricultural practices.

3. Use and transmission of methods, knowledge language, ceremonies, dances, prayers, oral histories, stories and songs related to traditional foods and subsistence practices, and the continued use of traditional foods in daily diet as well as in relevant cultural/ceremonial practices. Disruptions to traditional subsistence activities can restrict Indigenous Peoples’ capacity to protect their nutrition and health. Development processes often lead to dietary changes that result in increased chronic conditions such as obesity and diabetes. Such consequences could be reduced with more attention to cultural dietary and health principles, and with recognition of the nutrient properties of traditional food resources. Ceremonies, oral traditions such as stories, songs and oral histories and other cultural practices such as reciprocity, are important cultural elements in the maintenance and transmission of knowledge and practices of traditional food and agro-ecosystems. The loss of these cultural practices creates a disconnect in the relationship between culture and traditional food systems. However, the impacts of development processes on these culture-food relationships are mixed. Linguistic and cultural diversity have been threatened by processes of globalization (such as acculturation, market expansion, biodiversity loss) as well as through education and assimilation policies and programmes. The loss of indigenous languages can undermine their ability to maintain their traditional knowledge and food systems. Endogenous institutions play an important role in ensuring the continuity of traditional food systems and agro-ecosystems through the transmission of related traditional knowledge, beliefs and practices across generations, while taking into account the fact that culture is dynamic and changing. In this context, it is critical to identify factors that interfere with or provide opportunities for elders to pass on their knowledge to the youth as well as to identify skills, traditional knowledge and practices that are no longer appropriate to the changing environment

4. Capacity by Indigenous Peoples for adaptability, resilience, and/or restoration of traditional food use and production in response to changing conditions including migration, displacement, urbanization and environmental changes. Rapidly increasing rural-urban migration provides a

major challenge to Indigenous Peoples' adaptive capacity in all regions of the world. The reasons for migration are varied and include the pull factors of urban amenities and employment and push factors such as conflict, forced relocation due to land appropriation (for example, for mining, oil exploration or logging), ecological changes including climate change, and economic necessity. The move to an urban environment, severing the connection with the traditional ecosystem and its related culturally-based knowledge and practices can result in serious acculturation. The capacity of Indigenous Peoples or communities to adapt to changing circumstances such as expansion in the market economy, dramatic price fluctuations, new job opportunities in urban areas, loss of traditional land or waterways to mineral or oil exploitation, logging, plantations or national protected areas, changing political structures, schooling, environmental degradation and pollution, and climate change varies according to many factors, including the type, severity and suddenness of the change, threat or risk, their access to resources, the policy environment and the degree of organization and preparedness.

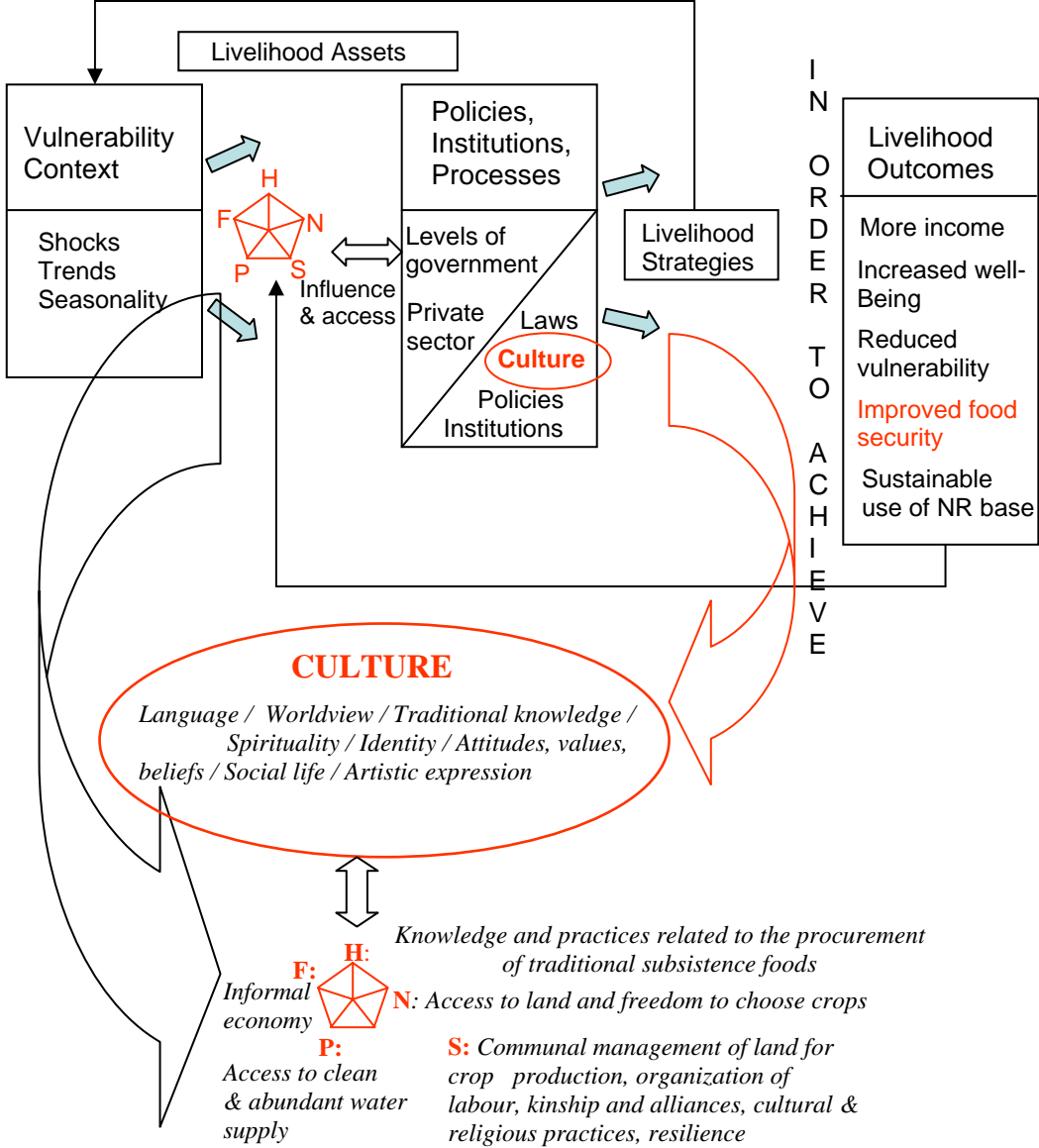
5. Ability of Indigenous Peoples to exercise and implement their rights including self-determination and free, prior and informed consent, as well as their self-government structures, to promote and defend their Food Sovereignty and related aspects of their development.

Indigenous Peoples' organizations are concerned that various types of development activities have had negative impacts on indigenous communities' traditional food and agro-ecosystems. Such impacts can only be avoided if development programmes are carried out with the free, prior and informed consent (FPIC) of the indigenous communities with traditional rights to the lands, territories or resources concerned. Indigenous Peoples are often insufficiently aware of their rights, particularly those related to Intellectual Property Rights (IPR) and Access and Benefit-Sharing (ABS) as laid down in various UN treaties and conventions. Conventionally, IPRs are conferred upon individuals and corporate entities, and are not applicable in cases of community ownership or spiritual significance of traditional knowledge. However, Article 29 of the (non-binding) 2007 UN Declaration on the Rights of Indigenous Peoples states that Indigenous Peoples are entitled to the recognition of the full ownership, control and protection of their cultural and intellectual property. They have the right to special measures to control, develop and protect their sciences, technologies and cultural manifestation, including human and other genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, inland waterway and deep seabed genetic resources, oral traditions, literatures, designs and visual and performing arts. However, these rights are often not respected. Furthermore, at its VI session in April 2002, the Conference of the Parties to the Convention on Biological Diversity adopted the Draft Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization. Although they are not binding, they have the potential to influence the development of national access and benefit-sharing laws. However, so far, national access and benefit-sharing measures have often failed to compensate Indigenous Peoples adequately and there is an urgent need to develop fair benefit-sharing with indigenous communities.

Indicators: The discussions of the issues related to indicator development in each of these five indicator areas concluded with a brief review of specific existing or potential indicators to measure trends or the impacts of changes.

Conclusions and recommendations: Indigenous Peoples' cultural practices and traditional food systems are mutually supportive and both are vital for their food security and overall well-being, yet these systems are being degraded or destroyed for a number of reasons discussed in the paper. Confronted with this situation, Indigenous Peoples are increasingly conscious of the need to engage in policy dialogue and negotiations with decision-makers to protect their rights and their food and agro-ecological systems and to restore them where needed. For this, they need good, reliable data to support their arguments. While a number of UN bodies and specialized agencies, government agencies and NGOs are involved in the development of relevant indicators, actual data on Indigenous Peoples' well-being remain scarce. Hence, the need to develop indicators that reflect their particular vision and to collect and analyze data on these indicators. Recommendations are proposed for all stakeholders, as well as specific recommendations for governments, UN organizations and Indigenous Peoples' organizations, with a view to improving the development and application of cultural indicators to Indigenous Peoples' food and agro-ecological systems.

Figure 2 Sustainable livelihoods framework illustrating how culture cross-cuts all five livelihood assets



Key:
H = Human capital **N** = Natural capital **F** = Financial capital **S** = Social capital **P** = Physical capital **NR** = Natural resource

The top portion of Figure 2 shows the SL framework as developed by the UK Department for International Development (DFID, 2000). Examples of relationships between culture and the five assets which influence and are influenced by the other elements in the framework are shown in the lower part of the diagram.

Appendix table 2: Indicator areas developed at the 2nd Global Consultation on the Right to Food and Food Security for Indigenous Peoples: Cultural Indicators for Food Security, Food Sovereignty and Sustainable Development

1. ACCESS TO, SECURITY FOR AND INTEGRITY OF LANDS, TERRITORIES AND NATURAL RESOURCES FOR TRADITIONAL FOOD PRODUCTION, HARVESTING AND/OR GATHERING		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of policies, programs, legislative and administrative measures (national, state, local/tribal and/or international) in place for the management, protection and conservation of lands, territories and subsistence resources used traditionally by Indigenous Peoples	1. Number of policies, programs, legislative and administrative measures (national, state, local/tribal and/or international) being effectively implemented for the management, protection and conservation of lands, territories and subsistence resources used traditionally by Indigenous Peoples.	1. Percentage of lands, territories and subsistence resources used traditionally by Indigenous Peoples for subsistence and food production to which IPs still have full access.
2. Number of national constitutional provisions, laws, policies and programs which support of Indigenous Peoples' access to and legal recognition of lands, territories, and natural resources which they have traditionally owned, occupied or otherwise used for subsistence and food production and practices.	2. Number of programs in place or under development to demarcate Indigenous Peoples' traditional lands, territories and/or subsistence use areas.	2. Percentage of Indigenous Peoples' lands and territories that are legally demarcated, recognized, owned and/or controlled by them today as compared to benchmarks established in past (i.e.lands recognized in Treaties and agreements, original/traditional use areas.)
3. Number of policies, programs, legislative and administrative measures in place (National, state, local/tribal and/or international) which restrict or limit Indigenous Peoples' use of and access to lands, territories and subsistence resources used traditionally.	3. Number of court cases or legal challenges to measures, policies or programs which restrict or limit Indigenous Peoples' use of and access to lands, territories and subsistence resources used traditionally.	3. Percentage of lands, territories and natural resources used traditionally for food production (farming, fishing, hunting, gathering, herding) currently being used by Indigenous Peoples compared to benchmarks established in the past (5, 10, or 20 years etc)
4. Number of laws, instruments, Treaties and ordinances in place which respect and uphold Indigenous Peoples' right to use, protect, control own and/or develop traditional subsistence food resources (plants, animals, seeds, genetic resources, etc) and prevent the misappropriation of Indigenous Peoples' collective bio-cultural heritage.	4.Degree of enforcement and compliance with Laws, Constitutions, Treaties, Agreements, Constructive Arrangements, ordinances and other Policies upholding and defending Indigenous Peoples' right to use, protect, control own and/or develop traditional subsistence food resources (plants, animals, seeds, genetic resources etc) and prevent the misappropriation of Indigenous Peoples' collective bio-cultural heritage.	4. Percentage of traditional use lands, territories, and subsistence use areas which have retained their productive capacity for farming/fishing/hunting/gathering/herding); Percentage which are now damaged, diminished, contaminated, etc.
5. Number of mechanisms in place with agreement of Indigenous Peoples for resolving conflicts regarding lands, territories and resources used traditionally for subsistence and	5. Frequency of conflict over territory and natural resources, number of court cases and disputes filed.	5. Percentage of conflicts settled in favor of Indigenous Peoples.

food production by Indigenous Peoples.		
2. ABUNDANCE, SCARCITY AND/OR THREATS TO TRADITIONAL SEEDS, PLANT FOODS AND MEDICINES, AND FOOD ANIMALS, AS WELL AS CULTURAL PRACTICES ASSOCIATED WITH THEIR PROTECTION AND SURVIVAL		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of traditional institutions or other mechanisms or programs in place for transmission of traditional knowledge about cultural practices related to food production, use, protection and/or abundance.	1. Number of investigations and studies re: abundance and health of traditional subsistence foods being carried out by Indigenous Peoples'.	1. Percentage of traditional knowledge and cultural practices associated with the use, production, protection and abundance of traditional food sources and resources still being used on a regular basis as compared to benchmarks from the past.
2. Number of programs and projects in place in communities for clean up of contaminated habitats; Percentage which are initiated/run/lead/evaluated by Indigenous community members.	2. Number of active programs in Indigenous communities to restore plant or animal food species and/or their habitats and measure the impacts on abundance since their implementation.	2. Percentage of traditional subsistence food resources (plant and animal) which are intact, viable, productive, healthy and free from contamination (toxics, GMO's etc) compared to percentage of subsistence plants and animals that show signs of disease, toxic contamination, diminishing population and other effects.
3. Number of government, corporate, agency, NGO or other outside entity programmes in place for clean up and restoration of contaminated or impacted habitats.	3. Number of studies initiated by Indigenous communities and/or outside agencies to compare traditional food use levels with diet related disease levels, suicide rates and other physical, mental or social illness or factors.	3. Changes in monthly/yearly harvests of food plants and animals used traditionally and reasons for any decrease, changes and/or restrictions.
	4. Numbers of studies or assessments by Indigenous communities and others in conjunction with Indigenous Peoples to assess impacts of imposed development (dams, deforestation, urbanization, industrial agricultural, mining, drilling, etc.) on the traditional lands, territories and subsistence resources of Indigenous Peoples.	4. Number of traditional food plants and animals which have been declared endangered, have decreased in numbers, and/or have disappeared (suggested comparisons to 50 years and 10 years ago, as per reports of subsistence users as well as existing governmental, agency, organization studies); number considered to be currently under threat.
		5. Levels of introduced environmental contaminants (i.e. mercury, POPs, pesticides and other agro-chemicals, genetic contaminants etc.) present in traditional subsistence foods including breast milk.
3. CONSUMPTION AND PREPARATION OF TRADITIONAL PLANT AND ANIMAL FOODS AND MEDICINES, INCLUDING IN CEREMONIAL/CULTURAL USE AS WELL AS DAILY HOUSEHOLD USE		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
	1. Number of programs in operation providing education to community members about health, nutritional benefits as well as cultural significance of	1. Percentage of households in a community that use traditional/ subsistence foods on a regular basis, compared to an agreed upon number of

	traditional foods.	years in the past (5, 10 or 25 depending on community history); Percentage of household diet based on traditional foods (weekly, monthly and over a year) as compared to “introduced” foods (i.e. processed foods, imported foods, GMO’s etc.).
	2. Number of such programs initiated by groups/agencies from outside the community vs number which are community-initiated and community lead.	2. Percentage of community members and/or families which still participate in traditional subsistence activities (compared to 50 years ago, 10 years ago or another appropriate number of years to determine rates of increase or decrease).
		3. Percentage of foods and food related items used traditionally in ceremonies which are still in use today as compared to an agreed upon number of years in the past (5, 10 or 25 depending on community history).
4. CONTINUED PRACTICE AND USE OF CEREMONIES, DANCES, PRAYERS, SONGS AND STORIES AND OTHER CULTURAL TRADITIONS RELATED TO THE USE OF TRADITIONAL FOODS AND SUBSISTENCE PRACTICES		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of traditional institutions/societies/leaders that initiate/take responsibility for traditional ceremonies and for religious activities related to or using traditional food (planting, harvesting, caretaking, gathering, hunting, fishing, preparation and serving).	1. Percentage of women, youth, men and elders that participate in the transfer of knowledge through traditional ceremonies and religious activities related to or using traditional food (planting, harvesting, caretaking, gathering, hunting, fishing, preparation and serving).	1. Number / Percentage of community members who participate in traditional ceremonies and cultural practices; percentage of those who are youth.
2. Number of contemporary institutions that provide for/support the continuation of these traditional ceremonies and cultural activities.		2. Number of traditional and cultural practices associated with the use, protection and abundance of traditional food sources and resources still being used on a regular basis (i.e. songs, ceremonies, stories, dances, clan relationships and other practices).
3. Number of traditional institutions in place to insure transmission of traditional knowledge about cultural/ceremonial practices specifically related to food production, use, protection and/or abundance, and the use of traditional foods in these practices.		3. Number or percentage of community members who actively participate in these cultural and practices.

5. PRESERVATION AND CONTINUED USE OF LANGUAGE AND TRADITIONAL NAMES FOR FOODS AND PROCESSES (PLANTING, HUNTING, GATHERING, HARVESTING, FISHING, FOOD PREPARATION ETC.)		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of traditional institutions/societies/leaders that take responsibility for the continuation of the traditional language, songs stories, etc related to traditional food use (planting, harvesting, caretaking, gathering, hunting, fishing, preparation and serving).	1. Percentage of youth who actively participate in programs to learn the traditional language including names for traditional foods and food related practices.	1. Percentage of living community members who know the words, songs, dances, stories associated with traditional food gathering/production/caretaking preparation and use.
2. Number of contemporary institutions that provide for/support the continuation of the traditional language, songs stories, etc related to traditional food use.		2. Percentage of community members who are fluent speakers in the Indigenous language and percentage of households in which an Indigenous language is the primary spoken language, and increase or decrease compared to number of years in the past (i.e. 10 years or 25 years).
6. INTEGRITY OF AND ACCESS TO SACRED SITES FOR CEREMONIAL PURPOSES RELATED TO USE OF TRADITIONAL FOODS		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Percentage of sites traditionally used for ceremonial, religious and related traditional subsistence activities currently under recognized Indigenous ownership, control, jurisdiction and /or protection.	1. Percentage of programs in place to return use/control/ownership/jurisdiction of these sites to Indigenous Peoples.	1. Percentage of total sites traditionally used for ceremonial, religious and related traditional subsistence activities within traditional lands and territories which are currently used on a regular basis compared to benchmarks established in the past (traditional use, Treaties, number of years ago, etc)
2. Percentage of these under other legal forms of protection (i.e. federal/state) and/or as protected areas.		2. Percentage of total sites traditionally used for ceremonial, religious and traditional subsistence activities within currently-recognized Indigenous territories which are now used on a regular basis.
3. Percentage of sites under state/federal protection and/or protected areas designation to which Indigenous Peoples have full access.		3. Percentage of these sites currently under threat of desecration/destruction/contamination etc.
4. Number of mechanisms in place with full participation and agreement of Indigenous Peoples for resolving conflicts regarding access to/control and use of/protection of sacred sites.		4. Percent of conflicts settled in favor of Indigenous Peoples.

7. MIGRATION AND MOVEMENT AWAY FROM TRADITIONAL LANDS AS A RESULT OF RURAL-TO-URBAN MIGRATION, CONFLICT, FORCED RELOCATION, LAND APPROPRIATION, CLIMATE CHANGE, AND ECONOMIC NECESSITY; RETURN PATTERNS AND RELATIONSHIPS TO CONTINUED USE OF TRADITIONAL FOODS

Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of laws/agreements in place providing for and enabling the free movement and return of traditionally mobile Peoples and for mobile subsistence practices (herding, fishing, hunting, gathering).	1. Number of laws enforced and implemented providing for the free movement and return of traditionally mobile Peoples and for mobile subsistence practices (herding, fishing, hunting, gathering).	1. Percentage of persons/youth that leave the community on a seasonal, semi-permanently (for at least 2 years) or permanently (5 years of more) for employment/economic or other reasons, including those which impact traditional subsistence access or resources.
2. Number of laws/agreements enabling cross border movement of Indigenous Peoples including access to traditional subsistence use areas.	2. Degree of enforcement of laws/agreements that exist to allow cross border mobility for subsistence, ceremonial and other related purposes.	2. Percentage of those who have returned to communities who use traditional food systems and ceremonial practices upon their return.
		3. Percentage of households, and percentage of youth, that retain or maintain traditional food use when away from their home communities.

8. EFFECTIVE CONSULTATIONS FOR PLANNING, IMPLEMENTATION AND EVALUATION APPLYING THE PRINCIPLES OF FREE, PRIOR INFORMED CONSENT AND FULL PARTICIPATION BY COMMUNITY MEMBERS WHEN DEVELOPMENT PROGRAMS ARE IMPLEMENTED BY STATES, OUTSIDE AGENCIES OR OTHER ENTITIES AND THE EXTENT TO WHICH CULTURAL CONCERNS ARE CONSIDERED AND ADDRESSED

Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of laws, legal systems and mechanisms in place, recognized and being implemented (traditional/ tribal/ state/national/ and international) for the recognition, protection and restoration of Indigenous Peoples' collective knowledge systems related to traditional foods and medicines (i.e. Intellectual Property Rights/Cultural Heritage rights) including the protection of genetic resources.	1. Number of court cases and complaints related violations of Peoples' collective knowledge systems/Intellectual Property Rights filed by Indigenous Peoples (symbols, genetic resources, seeds and plants, including medicinal plants, etc).	1. Percent of court cases and complaints related to Intellectual Property Rights/Cultural heritage rights settled in favour of the Indigenous Peoples.
2. Number of Indigenous Peoples-initiated programs in place to validate, organize, protect and/or register their traditional knowledge systems and resist/oppose/prevent misappropriation of their collective bio-cultural heritage.	2. Number of consultations for program planning, implementation and evaluation with community members and representatives by states, outside agencies or other entities; Percentage of community members including elders/ traditional subsistence practitioners/traditional food producers/knowledge holders/ users participating in these consultations.	2. Extent to which the definition, understanding and priorities for "Development" by the Indigenous Peoples affected is considered and reflected in relevant project planning, implementation and assessment, including preservation of traditional food systems and habitats, based on assessment of participating community members.

	3. Level of involvement of the affected local communities/community members in all studies and evaluations relating to traditional food production and use/subsistence resources and practices carried out in and near their lands and traditional use areas.	3. Extent to which development projects/proposals from outside the Indigenous communities respect and uphold the rights of Free Prior Informed Consent and Self-determination as defined and assessed by impacted community members including traditional subsistence producers/users.
	4. Level of participation in and control of programs and projects by the community members, including traditional subsistence and food producers, cultural leaders, and elders in the territories where they are being undertaken.	
9. EXISTENCE AND VIABILITY OF MECHANISMS AND INSTITUTIONS CREATED BY AND ACCESSIBLE TO INDIGENOUS PEOPLES FOR TRANSMISSION OF FOOD RELATED TRADITIONAL KNOWLEDGE AND PRACTICES TO FUTURE GENERATIONS		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of public policies and mechanisms that hold government and other interests accountable and responsible to Indigenous Peoples' interests in this area.	1. Number of programmes and institutional mechanisms existing, led and controlled by indigenous communities (using new and/or traditional knowledge transmission methods) to record and transmit traditional knowledge about food and subsistence practices.	1. Number of youth, women, elders and other community members involved in and benefiting from these programmes.
2. Number of government laws, programmes and policies in place and being implemented that support and recognize Indigenous Peoples' rights to maintain and transmit their traditional knowledge, and make decisions in that regard.	2. Level of community access to and availability of new technologies for knowledge documentation and transmission.	2. Number of Indigenous Peoples and/or institutions, including Indigenous youth, who use new communication Technologies and knowledge transmission methods to transmit and refer to Indigenous knowledge about traditional foods, threats to Indigenous Peoples' traditional foods and related cultural practices, and/or to organize support for and protection of traditional Indigenous food systems.
3. Extent to which Indigenous Peoples have control over local educational systems and schools, and utilize these systems to transmit knowledge related to traditional food production and use and related cultural practices.		3. Number or percent of Indigenous youth in a community/tribe/nation who perceive their traditional foods and subsistence practices as relevant in today's world (dynamic, vibrant, essential for success, cultural identity, health, survival).
10. CAPACITY WITHIN INDIGENOUS COMMUNITIES AND PEOPLES FOR ADAPTABILITY, RESILIENCE, RESISTANCE AND/OR RESTORATION OF TRADITIONAL FOOD USE AND PRODUCTION IN RESPONSE TO CHANGING ECONOMIC, POLITICAL AND/ OR ENVIRONMENTAL CONDITIONS		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of community run programs for the re-	1. Existence of and extent of participation in community-based discussions and	1. Percent of Indigenous community members that continue to use and produce

establishment of lost or threatened food sources, practices and/or knowledge, (including addressing adaptation to changing environmental, political, cultural and/or economic conditions).	decision-making regarding the need and/or desirability for adapting of traditional methods and food sources to changing conditions, including level of participation by elders, youth, cultural leaders, women and traditional practitioners.	traditional foods in their territories while adapting to changing conditions (migration, environmental changes, etc.).
	2. Number of new culturally and environmentally sustainable technologies or methods in use or under development for food production or related activities (i.e. sustainable energy production, water purification, irrigation, natural pest control etc.) with the agreement and involvement of local practitioners.	2. Number of Indigenous food traditions and resources that have resisted, adapted, and/or have been reincorporated in new situations and places, (new locations and residences, intercultural marriages, in response to impacts of climate changes etc.) in ways that are consistent with Indigenous cultural integrity and well-being as defined by the practitioners.
	3. Number of studies or assessments carried out by or involving community members to assess impacts of new technologies and methods for food production/use on traditional cultural integrity, health, traditional food restoration capacities and other factors (either undermining or enhancing).	3. Number of different Indigenous-generated income-earning activities associated with traditional foods, agro-ecological and native food systems, knowledge and practices.
11. ABILITY OF INDIGENOUS PEOPLES TO UTILIZE AND IMPLEMENT RECOGNIZED RIGHTS, LEGAL NORMS AND STANDARDS AS WELL AS SELF-GOVERNMENT STRUCTURES TO PROMOTE AND DEFEND THEIR FOOD SOVEREIGNTY ON THE LOCAL/TRIBAL/COMMUNITY, NATIONAL AND INTERNATIONAL LEVELS		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Existence/number of public policies, institutions, Treaties, agreements and laws which respect and support indigenous self-determination, autonomy and food sovereignty at all levels.	1. Number of public policies, institutions, Treaties, agreements and laws being effectively and actively implemented which respect and support Indigenous self-determination, autonomy and food sovereignty at all levels (local/tribal, national and international levels).	1. Number of Indigenous Peoples (individuals and communities) that know, implement, benefit from and have appropriated the right to food and food sovereignty in keeping with their diverse realities and self-determination.
2. Number of related government institutions with programmes and budgets (including national budgets) that are dedicated specifically/exclusively to Indigenous Peoples.	2. Number of programmes in Indigenous communities to inform and assist community members, leaders and practitioners to know their rights and available mechanisms/processes to assert these rights numbers of participants (general and also specific to women, youth and elders).	2. Number of Indigenous community members, including community leaders, who understand the relationship between rights to self determination/self government/ sovereignty/autonomy, food sovereignty/food security and community health and well being.

<p>3. Number and effectiveness of mechanisms for prevention of and redress for denial of rights to food, food sovereignty and subsistence rights at all levels (tribal/local/state/national/International).</p>	<p>3. Number of legal cases/complaints filed by Indigenous Peoples to prevent and/or halt activities that threaten or undermine their food sovereignty; final outcomes of these cases /complaints (percentage decided for or against Indigenous Peoples' interests).</p>	<p>3. Number of Indigenous communities who practice food sovereignty through self-government structures and assertions of their rights using a variety of mechanisms.</p>
<p>4. Number of existing ordinances and laws passed by Indigenous Peoples' own governing bodies and leadership institutions related to protection of food sovereignty, food producing lands, territories and resources; number of national/state/provincial laws that support and/or undermine these tribal ordinances and laws.</p>		

Appendix table 3: Consolidated indicators developed at the 2nd Global Consultation on the Right to Food and Food Security for Indigenous Peoples: Cultural Indicators for Food Security, Food Sovereignty and Sustainable Development

1. Access to, security for and integrity of lands, territories, natural resources, sacred sites and ceremonial areas used for traditional food production, harvesting and/or gathering and related cultural and ceremonial purposes		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of constitutional provisions, policies, programs, legislative and administrative measures (national, state, local/tribal and/or international) in place for demarcation, legal recognition, management, protection and conservation of lands, territories, subsistence resources, ceremonial areas and sacred sites used traditionally by Indigenous Peoples.	1. Number of constitutional provisions, policies, programs, legislative and administrative measures (national, state, local/tribal and/or international) being effectively implemented for the demarcation, legal recognition management, protection and conservation of lands, territories, subsistence resources, sacred sites and ceremonial areas used traditionally by Indigenous Peoples.	1. Percentage of lands, territories subsistence resources, sacred sites and ceremonial areas used traditionally by Indigenous Peoples for subsistence and food production to which IPs still have full access and/or control, and are legally demarcated or otherwise recognized today as compared to benchmarks established in the past (i.e. lands recognized in treaties and agreements, original/traditional use areas).
2. Number of policies, programs, legislative, administrative measures and legal mechanisms in place (national, state, local/tribal and/or international) which restrict, limit, respect or uphold Indigenous Peoples' use of and access to lands, territories, subsistence resources, sacred sites and ceremonial areas used traditionally.	2. Number of court cases or legal challenges to measures, policies or programs which restrict or limit Indigenous Peoples' use of and access to lands, territories, subsistence resources, sacred sites and ceremonial areas used traditionally and percentage of conflicts settled in favor of Indigenous Peoples.	2. Percentage of lands, territories and subsistence resources used traditionally for food production (farming, fishing, hunting, gathering, herding) and related ceremonial uses currently being used by Indigenous Peoples compared to benchmarks established in the past (5, 10, or 20 years etc); Percentage which have retained their full productive capacity vs. percentage which are now damaged, diminished, contaminated, etc.
2. Abundance, scarcity and/or threats to traditional seeds, plant foods and medicines, and food animals, as well as cultural practices associated with their protection and survival		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of programs and projects in place in communities for clean up and restoration of impacted habitats and/or restoration of plant or animal food species by government, corporate, agency, NGO or other outside entity programmes; number of such programmes which are initiated, run and/or evaluated by Indigenous community members	1. Number of investigations and studies on abundance and health of traditional subsistence foods based on changes in monthly/yearly harvests of food plants and animals used traditionally and reasons for any changes; number of programs/policies initiated as a result and percentage of those carried out by Indigenous Peoples and communities.	1. Percent of traditional cultural practices associated with the use, production, protection and abundance of traditional food sources and resources still being used on a regular basis as compared to benchmarks from the past.
2. Number of community-initiated and community lead programs or other initiatives in operation to provide education about the current threats to subsistence practices and resources (environmental contamination, habitat destruction,	2. Number of studies initiated by Indigenous communities and/or outside agencies to compare access to traditional foods, abundance and/or scarcity with diet related diseases (diabetes, malnutrition, infant mortality, maternal health, obesity, suicide rates and other	2. Percentage of traditional subsistence food resources (plant and animal) and habitats which are intact, viable, productive, healthy and free from contamination (toxics, GMO's etc) compared to percentage of subsistence plants and animals that show signs of

loss of traditional knowledge and Indigenous language, misappropriation and misuse of biological resources, genetic modification, etc.)	physical, mental or social illness or factors.)	disease, toxic contamination, diminishing population based on changes in monthly/yearly harvests and other affects.
3. Number of laws, ordinances and provisions in place to protect traditionally used subsistence plant and animals and their habitats from overuse, environmental destruction, misappropriation, contamination etc; Percentage that have been developed and are being implemented by and/or in conjunction with Indigenous Peoples.	3. Numbers of studies or assessments by Indigenous communities and others in conjunction with Indigenous Peoples to assess impacts of imposed development (dams, deforestation, urbanization, industrial agriculture, mining, drilling, etc.) and introduced environmental contaminants (i.e. mercury, POPs, pesticides and other agro-chemicals, genetic contaminants etc.) on traditional subsistence foods including breast milk.	3. Number of traditional food plants and animals which have been declared endangered, have decreased in numbers, and/or have disappeared (suggested comparisons to 50 years and 10 years ago, as per reports of subsistence users as well as existing governmental, agency and outside organization studies); number considered to be under current threat.
3. Use and transmission of methods, knowledge language, ceremonies, dances, prayers, oral histories, stories and songs related to traditional foods and subsistence practices, and the continued use of traditional foods in daily diet as well as in relevant cultural/ceremonial practices		
Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of traditional institutions or other mechanisms or programs in place for transmitting traditional knowledge, languages and cultural practices related to food production, use, protection, preparation and/or abundance.	1. Number of youth, women, elders and other community members involved in and benefiting from these programs to record and transmit traditional knowledge about food and subsistence practices.	1. Percentage of community households which use traditional/ subsistence foods as a regular part of their diet, compared to an agreed upon number of years in the past (5, 10 or 25 depending on community history); Percentage of total household diets based on traditional foods (weekly, monthly and over a year) as compared to “introduced” foods (i.e. processed foods, imported foods, GMO’s etc.)
2. Number of programs and institutional mechanisms existing, led and controlled by indigenous communities (using new and/or traditional knowledge transmission methods) to record and transmit traditional knowledge about traditional food production and subsistence activities and related cultural knowledge and practices.	2. Number of community-initiated and community lead programs or other initiatives in operation to provide education about the nutritional value, health benefits and cultural significance of traditional foods, and culturally relevant and environmentally sustainable food production methods; number of such programs in operation initiated by groups/agencies from outside the community.	2. Percentage of community members who know traditional methods for food gathering/production/preparation including the traditional language, songs, dances, stories and ceremonies associated with these practices traditional; Percentage of community members which participate in and use these practices and percentage of those who are youth.
3. Number of government laws, programs and policies in place and being implemented that support and recognize Indigenous Peoples’ rights to maintain, protect and transmit their traditional knowledge, control their educational systems and make other decisions in that regard.	3. Number or percent of indigenous youth in a community/tribe/nation who perceive or express that their traditional foods and subsistence practices as relevant in today’s world (dynamic, vibrant, essential for success, cultural identity, health, survival).	3. Percentage of foods and food related items used traditionally in ceremonies which are still in use today as compared to an agreed upon number of years in the past (5, 10 or 25, depending on community history).

4. Capacity by Indigenous Peoples for adaptability, resilience, and/or restoration of traditional food use and production in response to changing conditions including migration, displacement, urbanization and environmental changes

Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of community run programs for reestablishment of lost or threatened food sources, practices and/or knowledge (including adaptation to changing environmental, political, cultural and/or economic conditions).	1. Existence of and extent of participation in community-based discussions and decision-making regarding the need and/or desirability for adapting traditional methods and food sources to changing conditions, including level of participation by elders, youth, cultural leaders, women and traditional practitioners.	1. Percent of Indigenous community members that continue to use and produce traditional foods in their territories while adapting to changing conditions (migration, environmental changes, etc.).
2. Number of laws/agreements in place providing for and enabling the free movement and return of traditionally mobile Peoples and for mobile subsistence practices (herding, fishing, hunting, gathering) including across international borders.	2. Number of new culturally and environmentally sustainable technologies or methods in use or under development for food production or related activities (i.e. sustainable energy production, water purification, irrigation, natural pest control etc.) with the agreement and involvement of local practitioners and number of studies or assessments carried out by or involving community members to assess impacts of these new technologies and methods.	2. Percentage of persons/youth that leave the community on a seasonal, semi-permanent (for at least 2 years) or permanent (5 years of more) basis for employment/economic/subsistence or other reasons; of those who return to the communities, what percentage go back to using traditional food systems and related ceremonial/cultural practices.
	3. Number of Indigenous Peoples and/or institutions, including indigenous youth, who use new communication technologies and knowledge transmission methods to transmit and refer to indigenous knowledge about traditional foods, threats to Indigenous Peoples' traditional foods and related cultural practices, and/or to organize support for and protection of traditional indigenous food systems.	3. Number of indigenous food traditions and resources that have resisted, adapted, and/or has been re-incorporated into new situations and places, (new locations and residences, intercultural marriages, responding to impacts of climate changes, adapted as income-earning activities, etc.) in ways that are consistent with indigenous dignity and well-being as defined by the practitioners.

5. Ability of Indigenous Peoples to exercise and implement their rights including self-determination and free prior informed consent, as well as their self-government structures, to promote and defend their Food Sovereignty and related aspects of their development

Structural Indicator Areas	Process Indicator Areas	Results Indicator Areas
1. Number of laws, legal systems and mechanisms in place and being implemented (traditional/ tribal/ state/national/ and international) for the recognition, protection, control, ownership, restoration and/or redress of violations of Indigenous Peoples' collective knowledge systems and	1. Number of court cases and complaints filed to prevent and/or redress violations of Indigenous Peoples' rights to their collective knowledge systems and bio-cultural heritage (symbols, genetic resources, seeds and plants, including medicinal plants, etc.), to halt proposed non-sustainable development projects or	Number of Indigenous communities who practice food sovereignty through self-government structures and assertions of their rights using a variety of mechanisms.

<p>bio-cultural heritage, and other aspects of their right to food and food sovereignty.</p>	<p>to otherwise defend their food sovereignty; percent of those settled in favour of Indigenous Peoples.</p>	
<p>2. Number of public policies, institutions, treaties, agreements and laws in existence which respect and support Indigenous Peoples' rights to self-determination, free prior informed consent, autonomy, food sovereignty and right to subsistence at all levels; number/percent being effectively implemented and number being violated .</p>	<p>2. Number of consultations for program planning, implementation and evaluation with community members and representatives by states, outside agencies or other entities; Percentage of community members including elders/traditional subsistence practitioners/traditional food producers/knowledge holders/ users participating in and/or taking a leadership role these consultations and resulting activities and programs.</p>	<p>2. Number of development projects/proposals from outside Indigenous communities that respect and uphold the rights of free prior informed consent, self-determination and development as defined and assessed by impacted community members including traditional subsistence producers/users.</p>
<p>3. Number of ordinances and laws passed by Indigenous Peoples' own governing bodies and leadership institutions related to protection of food sovereignty, food producing lands, territories and resources; number of national/state/provincial laws and programmes (including those providing financial assistance to communities) that support and/or undermine the implementation of these tribal/Indigenous community ordinances and laws.</p>	<p>3. Number of programmes in Indigenous communities to inform and assist community members, leaders and practitioners to know their rights and available mechanisms/processes to assert these rights; Numbers of participants in these programmes (general and also specific to women, youth and elders).</p>	<p>3. Number of Indigenous community members, including community leaders, who understand the relationship between their rights to self determination and self government, their food sovereignty/food security and their community health and well being.</p>