THE KNOWLEDGE OF INDIGENOUS PEOPLES AND POLICIES FOR SUSTAINABLE DEVELOPMENT: UPDATES AND TRENDS IN THE SECOND DECADE OF THE WORLD’S INDIGENOUS PEOPLE
Thematic Paper on the Knowledge of Indigenous Peoples and Policies for Sustainable Development: updates and trends in the Second Decade of the World’s Indigenous People

The United Nations Inter-Agency Support Group (IASG) on Indigenous Issues aims to strengthen cooperation and coordination among UN agencies, funds, entities and programmes on indigenous peoples’ issues and to support the UN Permanent Forum on Indigenous Issues. It also seeks to promote the effective participation of indigenous peoples in relevant international processes.

At its annual meeting held in October 2013, the IASG decided to develop a set of collaborative thematic papers to serve as background information and analysis on key issues to contribute to the process and preparations for the World Conference on Indigenous Peoples.

The preparation of each paper was led by one or more agencies with inputs from other IASG members. The papers do not present or represent formal, official UN policy positions. Rather, they reflect the collective efforts of the Inter-Agency Support Group to highlight selected key issues and to provide substantive materials to inform the Conference, with a view to contributing to the realization of the rights of indigenous peoples.

*The chair of the IASG rotates annually amongst the participating agencies. The Support Group has been chaired by the United Nations Children’s Fund (UNICEF) until the end of the 13th session of the Permanent Forum on Indigenous Issues in May 2014. The Office of the High Commissioner for Human Rights (OHCHR) is currently holding the chair of the Group. The Secretariat of the Permanent Forum on Indigenous Issues acts as co-chair of the Support Group.*
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Key messages

- There is growing recognition that traditional knowledge and customary sustainable use underpin indigenous peoples’ and local communities’ resilience to change including climate change, as well as contribute directly to biological and cultural diversity, and global sustainable development.

- Sustainable livelihoods, cultural heritage and the knowledge of indigenous peoples can be threatened by action to combat biodiversity loss and climate change. Conversely, when respectful relationships are built with indigenous peoples, their sustainable management of their resources can enhance national and global action on climate change, as well as significantly contribute to conservation, sustainable use and the equitable sharing of benefits arising from biodiversity.

- The increased awareness of the links between traditional, indigenous and local knowledge and sustainable development is reflected in evolving international discussions on policies related to the environmental challenges and genetic resources – including in the scientific assessments that seek to inform these policies. Understandings from these distinct forums, including best practices on ensuring participation and engagement of indigenous knowledge-holders, is being considered.

- In considering issues related to the protection and promotion of indigenous knowledge, it is equally important to consider its inter-linkages with ensuring intergenerational transmission and continued access to and sustainable use of the lands and natural resources on which this knowledge is based. Consideration could also be given on how to provide sustained support for enabling monitoring of traditional knowledge in addition to connecting and communicating across scales between on-the-ground practice, national/sub-national decision-making and international understanding.
Summary

Biodiversity loss and climate change are pressing environmental challenges that nations face collectively. While there have been global gains in the recognition of traditional knowledge, more investment is needed in enabling its effective contributions to sustainable development policy and science, including the effective participation of traditional knowledge holders – indigenous peoples and local communities.

Since the first Rio ‘Earth Summit’ in 1992 the United Nations system has promoted the global recognition for traditional knowledge systems in achieving various environmental goals. This support has taken the form of intergovernmental guidance for the use of traditional knowledge, including its protection, access and benefits sharing; and promotion of traditional knowledge systems as necessary complement to science and on-the-ground support to ensuring the continued propagation and vitality of indigenous knowledge systems.

The following policy brief provides updates towards the international recognition and respect of traditional knowledge and policy-relevant areas for discussion, including issues that could be considered moving forward after the Second International Decade of the World's Indigenous People.
Background and Analysis

Biodiversity loss and traditional knowledge

Many indigenous and local communities are situated in areas where the vast majority of the world's genetic resources are found.¹ Men and women have cultivated and used biological diversity in a sustainable way for thousands of years. Some of their practices have been proven to enhance and promote biodiversity at the local level and to aid in maintaining healthy ecosystems. However, the contribution of indigenous and local communities to the conservation and sustainable use of biological diversity goes far beyond their role as natural resource managers. Their skills and techniques, which can also be gender-specific, provide valuable information to the global community and a useful model for biodiversity policies. Furthermore, as on-site communities with extensive knowledge of local environments, indigenous and local communities are most directly involved with conservation and sustainable use.

The contributions of indigenous and local knowledge systems towards a better understanding of biodiversity and its sustainable use and management, has been documented in the scientific and gray literature in many domains: biodiversity conservation and wildlife management, customary marine resource management, rural development and agroforestry, traditional medicine and health, impact assessment; and natural disaster preparedness and response.²

There is also a growing appreciation of the value of traditional knowledge in the potential benefits to modern industry and agriculture. Many widely used products, such as plant-based medicines, health products and cosmetics, have been developed using indigenous traditional knowledge.

As such, recognition of the links between traditional knowledge, sustainable customary use of biological resources as well as its wider potential benefits has led to international work on traditional knowledge in many areas – to ensure its recognition, continued vitality and protection from misappropriation. Traditional knowledge issues cross-cut across many domains in relation to global environmental issues, from biodiversity conservation and natural resource management, to use of genetic resources and to climate change.

² IPBES (Intergovernmental Platform on Biodiversity and Ecosystem Services). 2013. Initial elements of an IPBES approach: Towards principles and procedures for working with Indigenous and Local Knowledge (ILK) systems. IPBES/2/INF/1/Add.1
observations, mitigation and adaptation. Work on indigenous knowledge provides support to understanding the role of customary livelihoods within sustainable development and the links between environmental management, science and well-being.

The Convention on Biodiversity provides the clearest recognition of these links through work on the following two Articles that:

‘...respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge innovations and practices’ (Article 8(j))

and

‘protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.’ (Article 10(c))

With regards to customary sustainable use of biological diversity, the Parties to the Convention are poised to adopt a global plan of action at its twelfth meeting in October 2014. The objective of this plan of action is to promote, within the framework of the Convention, a just implementation of Article 10(c) at local, national, regional and international levels and to ensure the full and effective participation of indigenous and local communities at all stages and levels of its implementation. For indigenous peoples and local communities, ensuring customary sustainable use is intricately linked to continued transmission of knowledge to the next generation.

Climate change and indigenous knowledge

Indigenous peoples, particularly those in small island, high-altitude, desert and the Arctic, are already experiencing the impacts of climate change. While global inaction to reduce greenhouse gas emissions erodes their ability to remain resilient in an increasingly unpredictable and unstable climate, ill-informed climate mitigation and adaptation policies also stand to increase their vulnerability.

Despite this high exposure to the impacts of climate change, the knowledge of indigenous peoples offers valuable insights to observations of climate change. In-depth, site-specific knowledge can be coupled with broader scientific data and forecasts to provide enhanced understanding of already-occurring changes and predicted impacts upon men and women on the frontlines of climate change.

Traditional knowledge could provide an integral component to ensure the success of carbon mitigation projects such as fire management for carbon abatement and local monitoring and forest knowledge could contribute to national carbon mitigation programmes such as
REDD+. The UNFCCC COP requested developing countries when undertaking REDD+ actions to support and promote several safeguards, including respecting the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws and ensuring the full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities in REDD+ actions.³

Indigenous worldviews and livelihood strategies also provide valuable input into understanding the diversity of low carbon development strategies being used and how these could be promoted.

Indigenous knowledge also provides a crucial foundation for understanding local-level adaptation priorities and the range of appropriate adaptation options to enhance resilience and food security of indigenous women and men.

The Cancun Adaptation Framework adopted under the UNFCCC affirms that enhanced action on adaptation should be based on and guided by the best available science and as appropriate, traditional and indigenous knowledge, to integrate adaptation into relevant social, economic and environment policies and actions⁴. During the joint meeting on available tools for the use of indigenous and traditional knowledge and practices for adaptation, needs of local and indigenous communities and the application of gender-sensitive approaches and tools for adaptation, organized by the Adaptation Committee and under the Nairobi work programme on impacts, vulnerability and adaptation to climate change (held in April 2014), participants provided recommendations for adaptation practitioners to advance the use of indigenous and traditional knowledge and practices for adaptation and address the needs of local communities. The Subsidiary Body for Scientific and Technological Advice (SBSTA) will consider report on the meeting, including the recommendations at its fortieth session. The Adaptation Committee will consider the outcomes of the meeting to identify recommendations and guidance for consideration by the Conference of Parties, with a view to providing technical support and guidance to Parties, in order to facilitate the enhanced implementation of adaptation actions.⁵

Advancing indigenous knowledge in scientific assessments of climate change and biodiversity

The IPCC ⁴th Assessment Report (AR4) noted that indigenous knowledge is ‘an invaluable basis for developing adaptation and natural resource management strategies in response to environmental and other forms of change.’ This was reaffirmed at the 32nd Session of the IPCC in 2010: ‘indigenous or traditional knowledge may prove useful for understanding the potential of certain adaptation strategies that are cost-effective, participatory and sustainable.’⁶ But observations and assessments by indigenous peoples have remained relatively inaccessible to the IPCC process mostly due to language and socio-cultural

³ FCCC/CP/2010?7/Add.1, paragraphs 69 and 70 and appendix I, paragraphs 2(c) and (d).
⁴ FCCC/CP/2010?7/Add.1, paragraph 12.
⁵ Further information on the meeting, including report on the meeting is available at <http://unfccc.int/8020.php>
⁶ IPCC. 2010. Review of the IPCC Processes and Procedures, report by the InterAcademy Council (IPCC-XXXII/Doc. 7), 32nd Session, Busan, Seoul, 11–14 October 2010. IPCC.
barriers. Thus, for the most part, indigenous and marginalized peoples’ knowledge that appears in grey literature (i.e. literature that is unpublished or published outside peer-reviewed academic forums) or that is made available through non-written media has remained outside the scope of IPCC assessments.

At its 32nd session, the IPCC recommended broadening the participation of regional experts, the inclusion of grey literature, literature in other languages, and the organization of workshops – particularly in developing regions – to collect and assess relevant in situ observations and scientific data on topics relevant to Fifth Assessment Report (AR5), including indigenous peoples. This recommendation led to the collaboration of IPCC, UNU, and UNESCO to help strengthen the assessment of traditional knowledge and climate change adaptation and vulnerability. The UNESCO-UNU publication “Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation” provided a resource for authors of the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) to consider in formulating text relevant to indigenous peoples. This collaboration has resulted in a marked increase in the inclusion of traditional knowledge and indigenous peoples issues in the IPCC AR5.

Another encouraging development is the 2012 establishment of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) to assess the state of the planet’s biodiversity, its ecosystems and the essential services they provide to society. With indigenous and local knowledge embedded within their operating principles, the first work programme (2014-2018) will see IPBES will develop draft procedures for and approaches to working with indigenous and local knowledge systems.

Evolving international practice and normative frameworks for protecting traditional knowledge

Since 2009, World Intellectual Property Organization (WIPO) members have embarked on formal negotiations towards one or more international legal instruments that would ensure the effective protection of genetic resources, traditional knowledge and traditional cultural expressions. The draft being currently negotiated regarding protection of traditional knowledge is quite comprehensive and covers issues such as policy objectives, subject matter of protection, beneficiaries of protection, criteria for and scope of protection, complementary measures, sanctions and remedies, disclosure requirement, exceptions and limitations, relationship with other international agreements, and trans-boundary cooperation, amongst others.

Prior informed consent

Over the recent decade, several intergovernmental protocols and guidelines have emerged that require that access and use of traditional knowledge be based on prior informed consent. These include the:

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Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities

A collaborative framework ensuring the full involvement of indigenous and local communities in the assessment of cultural, environmental and social impact of proposed developments on sacred sites and on lands and waters they have traditionally occupied. The Guidelines require prior and informed consent concerning developments proposed on traditional territories.

Bonn Guidelines a voluntary guideline that requires the prior informed consent of indigenous and local communities and the approval and involvement of the holders of traditional knowledge, innovations and practices should be obtained, in accordance with their traditional practices, national access policies and subject to domestic laws.

Convention for the Safeguarding of the Intangible Cultural Heritage

A UNESCO convention for the promotion and protection of intangible cultural heritage, requires that nominations to the Urgent Safeguarding List and Representative Lists be made with the widest possible participation of the community, group or, if applicable, individuals concerned and with their free, prior and informed consent.

Nagoya Protocol a legally binding protocol that establishes that access to traditional knowledge associated with genetic resources is based on prior informed consent or approval and involvement.

Tkarihwaié:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities

That requires that any activities/interactions related to traditional knowledge associated with the conservation and sustainable use of biological diversity, occurring on or likely to impact on sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities and impacting upon specific groups, should be carried out with the prior informed consent and/or approval and involvement of indigenous and local communities.

Benefits-sharing

The Working Group on Article 8(j) and related provisions continues to work on guidance concerning equitable sharing of benefits under task 7 of the revised programme of work which request: the Working Group to develop guidelines for the development of mechanisms, legislation or other appropriate initiatives to ensure: (i) that indigenous and local communities obtain a fair and equitable share of benefits arising from the use and application of their knowledge, innovations and practices (ii) that private and public institutions interested in using such knowledge, practices and innovations obtain the prior informed approval of the indigenous and local communities (iii) advancement of the identification of the obligations of countries of origin, as well as Parties and Governments
where such knowledge, innovations and practices and the associated genetic resources are used.

Crucially, issues related to benefits-sharing, intellectual property, defining protectable traditional knowledge continue to be discussed within the framework of the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore. Since 2009, WIPO members have embarked on formal negotiations towards one or more international legal instruments that would ensure the effective protection of genetic resources, traditional knowledge and traditional cultural expressions.

**Full and effective participation in decision-making related to traditional knowledge**

There are both formal and informal mechanisms toward the full and effective participation of indigenous peoples and local communities in meetings held under the CBD, and in particular, in the ad hoc open-ended Working Group on Article 8(j) and Related Provisions. These mechanisms include the establishment of a Voluntary Fund for ILCs to enable indigenous and local communities to attend the meetings. Indigenous peoples and local communities are also invited to participate in formal and informal groups (such as contact groups and Friends of the Chair groups), may sit in the room alongside Parties and make interventions that can then be supported by Parties. Soliciting views of indigenous peoples and local communities are also routinely explicitly mentioned in relation to decisions of the convention.

The World Intellectual Property Organization (WIPO) also established a voluntary fund to facilitate indigenous and local communities' participation in the work of the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional knowledge and Folklore (IGC).

**Indicators for tracking the status and trends of indigenous knowledge**

The CBD, through Decision XI/3 B, has adopted four indicators for status and trends in traditional knowledge:

a) Status and trends in the practice of traditional occupations;

b) Status and trends in land-use patterns in the traditional territories of indigenous and local communities;

c) Status on Trends in the Practice of Traditional Occupations and
d) Trends in which traditional knowledge and practices are respected through their full integration, safeguards and the full and effective participation of indigenous and local communities in the national implementation of the Strategic Plan (B)

**Use of registers and databases for TK**

A number of concerns and questions have been raised about the documentation of traditional knowledge including its challenges and opportunities.
In CBD discussions, it was decided that while in some cases databases and registers may play a role in the protection of traditional knowledge, innovations and practices, such databases and registers are only one approach in the effective protection of traditional knowledge, innovations and practices and their establishment should be voluntary, not a requirement for protection, and established with the prior informed consent of indigenous and local communities.

The World Intellectual Property Organization (WIPO) Traditional Knowledge Documentation Toolkit aims to empower indigenous peoples and local communities to decide for themselves whether they wish to have their TK documented or not, and to make the right decisions regarding how to safeguard their interests and keep control of their IP rights, interests and options.

**Community Protocols**

Community protocols have the potential to informed users of traditional knowledge about obligations arising from customary law, without necessarily revealing the communities’ customary laws. The CBD Nagoya Protocol (article 12) requires Parties to take into consideration and the support the development of community protocols and procedures by indigenous peoples, with respect to traditional knowledge.

**Conclusion**

In the Second Decade, there is broader recognition of the links between traditional knowledge and sustainable development. Traditional, indigenous and local knowledge has emerged as an essential resource, alongside science, to inform environmental decision-making in global intergovernmental processes. This recognition is reflected in the continued discussions and establishment of international conventions, protocols, guidelines and other norms and practices towards the protection and inclusion of traditional knowledge in environmental policy and related scientific assessments. Good practices established through these discussions could be considered to improve the engagement of indigenous peoples in these processes. Consideration could also be given on how to provide sustained support for enabling monitoring of traditional knowledge and communicating national successes for the protection and use of traditional knowledge in enhancing community resilience and sustainable development.
ANNEX A

CASE STUDIES ON INDIGENOUS KNOWLEDGE AND THE ENVIRONMENT

Climate change: Sustaining indigenous fire management through carbon markets in Australia

Indigenous peoples have historically employed customary burning practice to manage the savannah regions. In many cases these practices have ceased, resulting in hot and uncontrolled wild fires late in the annual dry season. Experience in northern Australia shows that strategic reintroduction of traditional patchwork burning early in the dry season can limit the scale and intensity of late dry season fires, reducing emissions of the greenhouse gases that contribute to climate change all while allowing indigenous peoples to generate sustainable livelihoods through the Australian carbon market.

Biodiversity: The promotion and preservation of traditional medicinal knowledge in Brazil

Articulação Pacari brings together 47 traditional pharmacies and community-based organizations to cultivate medicinal plants, preserve traditional ecological knowledge and health traditions, and protect biodiversity in Brazil’s Cerrado (savannah) biome. In the absence of any comprehensive legislation that legally recognizes traditional health practices; the network has mobilized medicinal plant producers and local health practitioners to create self-regulating policies. Standards have been put in place on the amount of plant used in the preparation of traditional medicines, safety and sanitary conditions for plant processing, and sustainable harvesting techniques. In 2012 Articulação Pacari were recipients of the UNDP-managed Equator Prize.

Application of Akwé: Kon Guidelines: Wilderness Area management and traditional knowledge in Finland

In Finland’s Hammastunturi Wilderness Area, the Akwé: Kon Guidelines were applied in drawing up the management and land use plan. Over a process that took place from late 2010 to the end of 2012, the Metsähallitus Natural Heritage Services worked in cooperation with the Finnish Saami Parliament to apply the guidelines, review the results of the application of the Guidelines and offering development suggestions for drawing up future management and land use plans.

Indigenous networks for sustainable development: World Indigenous Peoples and Local Communities’ Land and Sea Managers’ Network

At the United Nations Conference on Sustainable Development, with the support of New Zealand, Brazil and Norway, Australia’s Prime Minister, announced the development of the World Indigenous Peoples and Local Communities’ Land and Sea Managers’ Network (WIN). The WIN aims to connect Indigenous peoples and local communities around the world to share their experiences in using traditional knowledge and practices with contemporary management systems to better manage their environments and support sustainable livelihoods. The WIN network has been handed over to the Equator Initiative (UNDP), which will act as a secretariat to advance to goals of WIN, including traditional
knowledge exchanges between and amongst indigenous and local communities\textsuperscript{8}. Partners include the Secretariat of the CBD.

**Indigenous Protected Areas**

Many indigenous peoples and local communities have lived in sustainable ways for millennium. Many have knowledge and practices that can maintain and even increase biodiversity on their traditional territories. Furthermore, their knowledge and practices are useful for ecosystem health and maintenance of ecosystem services, from which broader humanity benefits.

Often territorial and locally based and possessing an encyclopaedic knowledge of their local environment and its biodiversity, indigenous peoples and local communities are often best placed to economically and optimally manage the local ecosystem, including protected areas.

In additional community protected areas have a huge potential, firstly in preserving and promoting local biodiversity and ecosystem services and secondly as possible contributions to the national protected areas estate, as well as a contribution towards Aichi Target 11:

By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Indigenous peoples and local communities have much to contribute to global discussions concerning sustainability and have a right to participate in matters that may affect them\textsuperscript{9}. As proponents and practitioners of both biological and cultural diversity or biocultural diversity, indigenous peoples and local communities have unique insights into possible solutions both locally and globally.

\textsuperscript{8} The report of the conference and resulting network is available as UNEP/WDG8J/8/INF/12.

\textsuperscript{9} A/61/L.67* United Nations Declaration of the Rights of Indigenous Peoples, Article 18: Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision-making institutions.
ANNEX B

KEY INTERGOVERNMENTAL DECISIONS RELATED TO TRADITIONAL KNOWLEDGE AND THE ENVIRONMENT

THE TEXT OF THE CONVENTION ON BIOLOGICAL DIVERSITY

Article 8(j): ‘...respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge innovations and practices, and

Article 10(c) “Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements”.

As well as Articles 17.2
Exchange of information includes specialized knowledge, indigenous and traditional knowledge as well as repatriation of information (Task 15 of the 8(j) programme of work).
And 18.4
Technical and Scientific Cooperation, encourage and develop methods of cooperation for the development and use of technologies, including traditional technologies


AICHI TARGET 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

AICHI TARGET 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Other Aichi targets available at: http://www.cbd.int/sp/targets/