HANDBOOK OF CIDA PROJECT PLANNING AND INDIGENOUS TRADITIONAL KNOWLEDGE

Thank You For Your Help!

Many people have offered advice and suggestions. Suggestions have come by mail, e-mail, the interactive web site, personal interviews and international workshops. All of these comments have been very helpful and welcome. Almost all have been incorporated into the handbook.

Fijian islander, Dravuni, Fiji
(*photo Emery*)

"Indigenous peoples embody knowledge, even wisdom, that we may have lost, or never had. Their loss would impoverish us for, just as the world needs genetic diversity of species, it needs diversity of knowledge systems." *Huguette Labelle, President, Canadian International Development Agency, at the Plenary Session on Global Knowledge and Local Culture of theInternational Global Knowledge '97 Conference in Toronto, 1997.*

This handbook is intended for project development officers in the Canadian International Development Agency to help guide them in planning projects that interact with indigenous people.

The handbook has been placed here for educational purposes.

THE PURPOSE OF THE HANDBOOK

This handbook is a preliminary summary of practical information to guide CIDA project planning and implementation when indigenous peoples are affected directly or indirectly by a project supported by CIDA. For more details of the process of Results-Based Management as practised by CIDA, see Appendix 1. The project may be developed by indigenous peoples, or it may simply affect them in some way. It is not intended to be a guide to field operations. Rather it is a series of triggers that help alert project officers and managers to key issues that need to be addressed by actions
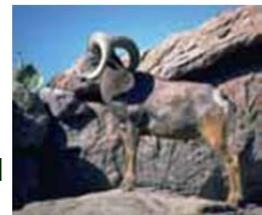
to ensure indigenous peoples and their knowledge are included when it is appropriate to do so. The handbook makes the important observation that indigenous traditional knowledge is more than a simple compilation of facts drawn from local, and often remote, environments. It is a complex and sophisticated system of knowledge drawing on centuries of wisdom and experience. It is not possible to invoke this sophistication without including the indigenous peoples themselves as practitioners – in much the same way a project makes use of scientists or urban planners.

No handbook can or should attempt to teach indigenous traditional knowledge. In the same way that science or any other complex and vast body of knowledge, methods, belief systems, and assumptions requires context, language, and skilled interpreters to be used effectively in planning or implementation, so it is with indigenous traditional knowledge. Legitimate holders of indigenous traditional knowledge range from highly skilled and experienced Elders to hunters and trappers, gatherers of herbs and practitioners of many kinds. Men and women reach equivalent levels of wisdom and understanding in traditional ways. Often there are important gender differences in the knowledge content and in the assumptions for its use.

The handbook does not suggest topics for projects. It recognizes that the traditions of different indigenous groups vary immensely, and in important ways for project development. However, it is well beyond the scope of this handbook to do more than remind project officers and managers that it is critically important to understand the particular culture within which the project is to take place.

The handbook does not attempt to treat the subject exhaustively. A comprehensive work on the subject is needed, and many people in the world are vigorously addressing the problems in many different ways. In fact, CIDA recognizes that the handbook is really a single step in a program of change that will require many steps. Nonetheless, it is an important step forward and emphasizes the commitment to indigenous peoples and the many policies and conventions to which CIDA adheres.

Many traditional knowledge holders, indigenous peoples, indigenous associations, development agencies, scientists, officers in program planning and regulatory agencies, as well as representatives of corporations have participated in the assembly of information and ideas, and revision of the draft versions of this handbook. A number of people within CIDA who expressed an interest in the project were especially helpful in clarifying issues related to their areas of expertise.

Case Studies

#1 Balancing Autonomy with Participation
The Alto Mayo Project in Peru was sponsored by the International Fund for Agricultural Development. The fundamental lesson learned is that cultural viability can be safeguarded only through the continued habitation and use of traditional land. The valley of the Mayo River was isolated from the rest of the country until the 1970s, when construction of the Carretera Marginal trunk road gave access. A wave of spontaneous

settlers from the highlands and the coast then came into the valley, increasing the population five-fold. Under such a dramatic event, the Aguarunas became a disadvantaged minority in their own traditional territory. Providing legal land titles to the nine Aguaruna communities living in the Alto Mayo basin, adjacent to the settled areas, was a condition of the IFAD project.

The native communities were thus able to obtain communal land titles and rights from the government before the major wave of migrants could reach the region. In this way, the nine communities became owners of 60,000 hectares of land, of which some 17,000 hectares were suitable for intensive agricultural production. Consequently, they could continue their traditional activities in shifting agriculture, growing about 80 species of plants, most important among them, manioc, maize, bananas, and rice. Hunting, fishing, and gathering fruits and nuts from the forest are other activities that significantly enhance their diet.

#2 Indigenous Women and Traditional Medicine in Oaxaca (Mexico)
Traditional medicine and healing are an emergent area of concern. In this region, women form the majority of traditional healers. Medicine people have formed 17 groups in Oaxaca and are now practicing their art in their communities. They are evolving various skills from indigenous mid-wives to specialized healers. Therapies based on herbs, massages, sweats, chiropractic, and other forms are sued for many physical and mental diseases.

After bitter struggles with official associations of physicians, traditional medicine people finally were able to organize joint meetings in which they shared their experiences and set up plans for collaboration. As a direct result, two reports on traditional medicine have been issued, and the indigenous women have benefitted immensely. Their involvement has been a key factor in cataloguing the plants, herbs, and practices, and in promoting the conservation and availability of curative products and practices. With the support of the National Indigenist Institute, UNICEF, and NGOs, an overall health program has been established. Recognized medicine people and healers train interested indigenous villagers as health promoters through courses and workshops, focussing on the recovery of communal knowledge about medicinal plants and traditional healing practices. The status of indigenous women has been enhanced through the creation of a council of traditional medicine where their knowledge is recognized, and through the opening of community clinics. Not only can they make wide use of their traditional knowledge in medicine, but also the exercise of their practice has been greatly improved.

#3 Bearers of Knowledge: Mossi farmers of Burkina Faso and the Revival of a Terracing and Water Harvesting Practice in the Sahel
Early this century the Mossi put up lines of stones (bunds) on their cultivated land to build up terraces. Because of political instability this method was later abandoned. After a series of droughts in the 1970s, the bunds were revived. Pits that conserve water were added. They were filled with organic material to increase soil fertility. Other introduced systems were shunned. The stone bunds are built up over the years,

reaching about one meter height, terracing the slopes with relatively little labor input during the slack, dry season. The semi-permeable bunds allow for a gradual seeping in of the water and prevent the run-off caused by the scarce but highly intensive rains, reducing the risk of crop failure and soil erosion. In the disastrous drought years of 1983 and 1984, crops grew on land with bunds, while adjoining fields grew nothing. The International Fund for Agricultural Development (LIIAD) assisted Burkina Faso to disseminate the technology throughout the country's densely populated central plateau, where today 150 villages on the plateau now have stone lines. Sorghum yields on the plateau have risen by about 40 percent in fields with bunds. Locally developed practices require an enabling political and economical environment. A participatory approach allows farmers the choice of technology.

#4 Maasai Weather Forecasting in Tanzania
Maasai alternate the use of their natural grassland according to seasons. This requires a timing decision on when and where to move next. They predict droughts as well as weather related diseases by watching the movements of celestial bodies in combination with observing the date of emergence of certain plant species (e.g.. Ole Kitolya). Such "early warning signals" of an approaching environmental disaster are used to determine any preventive measures, prepare for mitigation and decide on the course of the community in using the natural resources. Similarly, estimates of animal fertility can be drawn from such forecasts with implication on stocking rates and density. This knowledge is little researched so far. Traditional expertise in astronomy and weather forecasting in combination with conventional agricultural meteorology could enhance local forecasts on harvests and food security.

WHO ARE INDIGENOUS PEOPLES?

The Identification of Indigenous Peoples

According to the international labour organization, there are about 5,000 different indigenous or tribal peoples living in seventy countries. The total world population is estimated at about 300 million indigenous peoples. all definitions of the concept of "indigenous" regard self-identification as a fundamental criterion for determining the groups to which the term indigenous should be applied. within the un family, the international labour organization (ILO Convention 169) defines indigenous and tribal people as follows: tribal people in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations;

Use the simple definition:
Indigenous peoples are self-identifiable as a people, wholly or partially self-governed, and live within a larger nation.

Local Communities are not Equivalent to Indigenous Community

Local communities may be, but are not necessarily the same as indigenous communities. If a community is populated by people who are self-identifiable, wholly or partially self-governed, and who live within a larger nation, then that community is also an indigenous community. Most local communities are not in this category. Local communities often have a fund of knowledge and expertise that is extremely valuable in project planning and implementation. Local people have specific special interests in the impacts that the project might have on them. Local communities have a sense of self identity that is an important aspect to be preserved. For these and many other reasons, it is important to ensure that local communities are intimately involved as stakeholders in project development when that project has a direct or indirect effect on them.

WHAT IS INDIGENOUS TRADITIONAL KNOWLEDGE?

Indigenous Traditional Knowledge

There are many definitions and descriptions of traditional knowledge of indigenous peoples. most of these are helpful, but none seem to completely capture the full concept. in non-indigenous thinking, knowledge is often thought of as a "thing," something that can be extracted and put into a book. while traditional knowledge certainly has aspects that are amenable to this treatment, facts, observations, lessons, and predictions, traditional knowledge is also a body of processes, practices, and relationships. interweaving sacred and metaphysical aspects with secular understanding is a practical and common means of invoking a broader meaning than is typical in science, for instance.

The following description is an excellent and sensitive attempt by a non-indigenous person to capture and give credence to traditional indigenous knowledge:

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

Director General of UNESCO (Mayor, 1994)

By comparison, the next quote is from a group of Canadian indigenous peoples who live and work in the field of applying and explaining indigenous traditional knowledge. The description below distinguishes carefully between traditional knowledge in the broadest sense, and traditional environmental knowledge, a narrower body of information and understanding:

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

(Dene Cultural Institute definition)

A Different World View

Indigenous peoples often live in rural areas, work within the natural systems, and are culturally tied to the land. Indigenous peoples who live close to the land can bring direct observation and special understanding of the natural cycles, and of animals and plants. Their traditional knowledge extends back hundreds or even thousand of years, a perspective science simply does not have. For all indigenous peoples, cultural roots are solidly planted in traditional knowledge and practice. Indigenous traditional knowledge represents a unique opportunity for projects to increase their information base, to improve their effectiveness and efficiency, and to add new world views and perspectives to the many variables that are part of development project planning and implementation.

To take advantage of this potential, special care and methods need to be used if indigenous peoples are to be real partners. Indigenous peoples sometimes do not easily participate in non-indigenous planning processes because they have different ways of making decisions and may not use representatives as spokespersons. Indigenous peoples who live in rural areas may not be politically influential, or may be "invisible" to project planners. Yet they have much to offer a project in their area, and, of course, much to benefit if they are included in project planning and decision-making. In the past, they also had much to lose by being excluded from project planning.

The Holders of Indigenous Traditional Knowledge In traditional indigenous communities, all people hold at least some traditional knowledge. Typically the most accomplished practitioners and disseminators of traditional knowledge are the older people in the community. Just being old, however, does not automatically confer a depth or breadth of traditional knowledge. Certain Elders are more proficient and wise than others. In addition, those who are practicing the traditional skills on a day-to-day basis are more likely to be adept in both the ancient and modern skills and knowledge that make up a fully developed traditional knowledge base, than those who are not using the traditional ways on a daily basis. Unlike a formal education system, there are no certificates or degrees by which to judge if an indigenous person has a high degree of skill in traditional ways. Every traditional community, however, is aware of who is best in various areas of traditional knowledge.

Knowledge is often grouped into certain areas: medicine and healing, hunting and fishing, gathering and agriculture, combat, and spiritual, are examples. In each indigenous culture, the groupings will be different, but usually, the most important people are acknowledged leaders in one or more of these areas, gaining their status from the knowledge and expertise they possess. In some indigenous cultures, dress, grooming, or symbolic icons (feathers, beads, shells, style of weapon, and many others) denote status or skill area.

For project planning, it is important to recognize that although one person may be the leader for a knowledge area, others also may be highly skilled or even better in certain

aspects. For example, the "medicine man" or "shaman" may be the person with the highest status in healing and medical aspects, he or she is certainly not the only person who has traditional knowledge about medicine. In fact, others may be more skilled in certain aspects. Often women deal with the problems such as wounds and injuries, whereas elite healers deal with sicknesses that have less obvious causes.

Women and Traditional Knowledge

Project planners intending to include traditional knowledge should take care not to neglect gender differentiation. Traditional knowledge held by men is critically important, but is often incorrectly assumed to be the only important source of traditional knowledge. Traditional knowledge that is held by women needs special consideration for a number of reasons. Indigenous women, as the primary harvesters of medicinal plants, seed stocks, and small game, are keepers of the knowledge about significant spheres of biodiversity in their own right, and as such they may be best able to identify environmental indicators of ecological health. Perhaps even more important is that women share with men the responsibility for stewardship of values in their societies. They feel a keen responsibility to future generations for actions undertaken today, to ensure continuity and wholeness of their lifestyle, their culture, and the natural world in which we all live, for their descendants. It is women, in the main, who transmit these values to the next generation. Their multi-generational perspective needs to be taken into account. In many parts of the world it is often women who grow food crops, gather water and fuel, and perform most of the work that sustains the family. Development projects have sometimes inadvertently misunderstood their role. Privatization of land, the building of dams and irrigation projects and mines, and the array of impacts of agri-business can marginalize women and dispossess them of their independent ability to sustain themselves and their children.

Current models of economic growth and development focus on notions of commodities produced for profit in the marketplace. These models do not easily recognize the economy of "women's work", which is largely invisible because it is undertaken for subsistence or domestic purposes rather than for profit. Consequently women's work is often not counted or valued. This hidden economy of women's work is often inextricably bound up with nature, and needs to be recognized in any development scheme.

The Nature of Traditional Knowledge

To acquire a deep understanding of indigenous traditional knowledge and to be able to use it responsibly in estimating impacts on the environment or on the culture of the people, requires a lifetime of immersion. Just as with the development of scientific expertise, which also requires decades of immersion and practical experience to be highly accurate in predictions, a great investment of time is needed. While it is entirely possible to gather the facts and information contained in the traditions, it is much more difficult to understand the relationships that are contained in the generations of teachings. For this reason, and like science, it is not difficult to describe traditional knowledge, but it is not practical to "collect" it and use it in the framework of science. Traditional knowledge should be collected and used within its own framework. It is entirely practical, however, to have the practicing scientist and the practicing holder of

traditional knowledge work together. The key to success is respecting each other's methods and information, while assessing the conclusions in a co-operative fashion. Indigenous traditional knowledge is a way of life. This straightforward statement is rarely understood by non-indigenous peoples who attempt to collect or document traditional knowledge. While traditional knowledge is a process of acquiring and passing on knowledge and understanding, and while it contains the database of knowledge collected, it is much more. It is a structure of values, stories, language, and social relations. It is an experience-based relationship with family, animals, places, spirits, and the land. It is a world view. Because it is experiential, each group will have a tradition that is, to a greater or lesser extent, different from other groups. While it may be convenient to speak of indigenous traditional knowledge, it is important to understand that such knowledge is not a single homogenous body. In fact, many indigenous peoples would say that their traditional knowledge is only accessible to its fullest extent by those who understand the language of their people.

Recognize that indigenous knowledge is a way of life, an experience-based relationship with family, spirits, animals, plants, and the land, an understanding and wisdom gained through generations of observation and teaching that uses indirect signals from nature or culture to predict future events or impacts.

What About Non-Indigenous Traditional Knowledge?

Every culture has its own traditional practices and special understanding of the universe. Most people have family traditions that have been passed down through generations, including simple things like recipes and local legends, as well as complex cultural aspects of belief systems and social customs. Local non-indigenous communities of long standing also have traditional knowledge of the local conditions, environment and wildlife. This knowledge may be as in-depth as indigenous traditional knowledge in certain areas, and therefore is of great importance to project planners. The case of indigenous peoples is different, however, because they are nations within other nations, and an identifiably different group of people within the larger population. They and their knowledge bases are therefore treated differently within the larger nation and dominant culture. Local communities are a part of the dominant culture. Indigenous populations, by definition, are not part of the dominant culture, and have a different perspective. Indigenous traditional knowledge and language are parts of the definition of indigenous autonomy. Recognizing the difference between indigenous and non-indigenous knowledge supports and emphasizes the additional value and understanding that can come from combining the two as complementary, rather than treating them as similar bodies of information. To do so may result in a "power struggle" between the two knowledge bases, eroding the credibility of both. By joining the power of indigenous and non-indigenous approaches, a symbiosis can result, enhancing the depth and breadth of both systems.

WHY INCLUDE INDIGENOUS TRADITIONAL KNOWLEDGE?

Indigenous Traditional Knowledge Systems and CIDA Commitments

There is growing support in many countries for indigenous peoples' traditional rights to natural resources, and an increasing interest in the traditional understanding about the natural, cultural, and spiritual world of indigenous peoples. These factors have highlighted an opportunity to increase the effectiveness of CIDA projects by deliberately including the traditional knowledge systems of indigenous peoples as part of project planning and implementation when indigenous peoples are directly or indirectly affected.

CIDA has long been interested in many of the principles that underpin the world's increasing interest in indigenous peoples and their traditional knowledge systems. Indigenous peoples are self-governed but not often positioned to be influential in the dominant culture of their location. CIDA's policy on Human Rights, Democracy and Good Governance, as well as the policy on Women in Development and Gender Equity provide principles to guide planners where local policies are missing or inadequate. Many indigenous peoples find themselves in a transitional stage, facing the demands of an evolving and intrusive world, but still rooted in the traditional life styles of the past. This usually places indigenous peoples in difficult living conditions. Planning projects using the paired CIDA policies of Basic Human Needs and Poverty Reduction is an important element to mitigate the difficulties associated with this transitional condition for indigenous peoples.

Finally, the traditional knowledge systems of indigenous peoples, while highly variable in their content and style, nonetheless all have a great deal to offer in sustaining life on the planet. Most indigenous knowledge systems assume that people are part of the land, not that they own the land, so they consider themselves as true guardians. The draft 1999 update of the Policy for Environmental Sustainability directs project planners to enhance CIDA's understanding of local conditions, specifically by using traditional and indigenous knowledge regarding the environment and its stewardship in CIDA projects and activities. The same policy calls for participatory processes that respect the sovereignty, traditions, and culture of its partners. Thus, strategic commitments are embedded in the existing policies of CIDA that underlie the emerging emphasis on indigenous traditional knowledge systems and the people who developed those systems.

Government Priorities and CIDA Values

Government priorities significantly affect the potential inclusion of indigenous peoples in planning their future. Many countries have fiscal survival and resource development as their highest priority. When this is the case, the extraction of forest and mineral products from natural areas is regarded as a major benefit to the country. The attendant reduction of environmental value is not regarded as a large offsetting cost. The rights of

indigenous peoples may be ignored. For indigenous peoples who dwell on the land, their very survival is at stake. While indigenous peoples welcome progress, they also want to be able to continue living on their land and making their own decisions about their future.

Governments have a responsibility to their citizens and international law is increasingly protective of indigenous traditional rights to natural resources. Court decisions such as the Delgamuukw Supreme Court decision in Canada and the Philippine Indigenous Peoples' Act both recognize traditional rights to resources and traditional means of demonstrating those rights. One of the keys to establishing mutually beneficial development projects is for governments to require environmental impact assessments with meaningful participation of local indigenous peoples as a precondition to granting concessions, and to recognize that the desired end result is satisfactory economic, social and developmental benefits for all parties involved. Both the negotiations and the actual assessments should include equity, empowerment, and respect for all parties. The diligence of the regulatory agency in monitoring the fairness of these assessments and the implementation process contributes significantly to the success or failure of both the assessments and the project.

Because of differences in concepts of ownership, indigenous peoples often begin at a disadvantage. Governments assume central ownership of land unless it has been sold and deeded to an individual or a corporate entity. Under this regime, forest dwelling people, and many indigenous groups who live on the land, have no "legal" rights to the property they have lived on for centuries.

Indigenous peoples have managed their wild resources for centuries. The Convention on Biological Diversity (Article 8 (j)) holds that indigenous peoples have certain stewardship rights over wild resources. The article specifies, however, that the provisions only apply if the laws of the specific nation are compatible with the provision. In this way, nations are free to use the article within the framework of their own legal system, but are not bound to it.

Humanitarian Needs

Reducing Poverty
The world situation is highly variable, but most indigenous communities fall far below the Canadian acceptable norm for access to basic human needs. Often these poor conditions can be improved by elementary infrastructure support services needed to operate in a developed world. CIDA encourages and supports projects that benefit these areas. For many indigenous communities, moving away from welfare dependency attitudes and transforming aid projects into self-sustaining projects can be difficult. CIDA's emphasis on private sector development is one means of ensuring that projects become self-sufficient.

Governance
Historically, indigenous peoples have been ignored by sovereign nations or corporations

in development projects. Worse, they have been treated as a problem in allowing development to proceed. It is important to correct and replace past practices that were damaging. To be sure, not all projects suffered from poor practices, but poor practices have been the norm. Poor practices are often the direct result of insensitive people who placed little priority on cultural differences or on the close tie to the land that characterizes indigenous peoples In other cases, poor practices are the result of not knowing how to bridge the differences in the culture and knowledge systems.

Indigenous peoples deserve to participate in shaping their own destiny. Indigenous traditional knowledge is an important source of knowledge that can be very helpful in project planning and implementation. Because traditional knowledge acquisition and use is often unlike that commonly adopted in development projects, special approaches may be necessary to integrate traditional knowledge into development projects. There is currently very little summarized information readily available to guide project planners in using traditional knowledge, nor on how to include it effectively in project planning.

Women's Issues and Human Rights
Women in many traditional communities do not have equality of power in decision-making or as participants in the development of their societies. In many communities their role in making decisions is very minor or non-existent. For some women, the fundamental decisions about women's futures are the hands of men. Greater respect for state rights than for individual human rights, especially in countries that do not embrace democracy as a basis for their governance can make the problem worse for women and children. Including traditional knowledge can encourage the inclusion of women by recognizing the value of their knowledge.

Environmental Sustainability
Indigenous peoples are often located in rural environments, including some of the most untouched regions of the world. Because many of the most vital cultural and spiritual values indigenous peoples hold are rooted in the land, and because many development projects can modify the land, indigenous peoples can be profoundly affected. In some cases, the impacts are very positive, but there is always an immediate need to consider solutions to any potentially negative impacts. Negative environmental changes can be caused by the extraction of natural resources, or by the modification of natural areas to other purposes such as agriculture, transportation, or increased urbanization. CIDA projects should minimize negative environmental impacts. When indigenous peoples are involved, negative environmental impacts can be very serious, simply because people living in traditional life styles rely heavily on a healthy environment, an environment that is well-understood within the traditions of the indigenous population. Inclusion of the traditional knowledge brings this understanding to the fore. However, not all indigenous communities want to change their traditional life style, although many do. Many seem to favour a mixture of traditional and technological life styles, but all indigenous cultures espouse a sustainable relationship with nature, and a secure and healthy life.

HOW IS INDIGENOUS TRADITIONAL KNOWLEDGE ACQUIRED FOR PROJECTS?

The Basics

Best practice is a long way from being established in the acquisition and use of traditional knowledge systems of indigenous peoples. Certain ideals, however, are now apparent.

In acquiring indigenous traditional knowledge:
1. Cause no harm.
2. Define the roles and responsibilities of participants carefully and in line with culture and knowledge systems.
3. Define the information to be collected; specify taboo information as outside the project limits.
4. Establish the use, ownership, and the means to interpret or communicate information at the outset.

Regardless of the practices, it is important to recognize a fundamental difference in the beginning assumptions that each party will have. Most project planners have already decided the project should move ahead, and are concerned with how that should be done. Whereas, most indigenous communities who are being asked to participate, will be assessing why and if the project should go ahead, not how.

Respect, Trust, Equity, and Empowerment

Recognize that including traditional knowledge systems in projects requires respect, trust, equity, and empowerment of indigenous peoples and of the traditional knowledge system.

As with any knowledge system, the power of the system is rooted in the experience of many people who have found a means to accumulate that experience into a body of practices and processes that allow greater insight into the world around us than any one person can hope to achieve independently. Traditional knowledge uses indirect indicators that over centuries have proven to predict events accurately. Traditional knowledge models may be mechanistic, but are equally likely to be non-secular or metaphysical explanations.

Respect, trust, and equity are largely attitudinal concerns, whereas empowerment is usually a question of time and money to help build capacity. Empowerment is the easiest to implement, but it is often ignored. Respect, trust, and equity are a function of personal and professional relationships. In indigenous communities, trust and respect can take years to achieve, especially in those locations where indigenous peoples have been repressed. Equity is easy to describe, but difficult to achieve when vastly different frameworks for two systems of knowledge, such as science and indigenous traditional

knowledge must work together in harmony, and where they will frequently come to different conclusions.

The four elements all work together.

Respect for traditional knowledge systems means that the techniques used are valid means of gathering and interpreting information about the project variables. Trust is an important facet of the relationship between the participants in acquiring and using the knowledge and understanding that comes from traditional knowledge. A scientist trusts the logical framework within which he or she works. The same is true for the traditional knowledge practitioner. To work together, both groups must be able to trust the work of the other.

Equity is one of the most troublesome. Equity assumes that one system is no better or worse than another. To work together in an integrated fashion, all systems of knowledge must recognize their strengths and weaknesses and work to bring the systems together in a complementary fashion, meshing the strengths of one with the weaknesses of the other. Equity can become an issue when two systems of knowledge come to different conclusions. The biggest mistake is to assume that one or other system is more powerful. Instead, the differences in conclusions should be taken as a signal that there may not be enough information at hand to come a proper conclusion, or that the question was posed incorrectly, or that there is some other problem. The use of the equity principle establishes a trigger for discussion and renewed investigation.

Empowerment means ensuring that the parties all have the capacity to engage in a meaningful dialogue. It can mean that the project will need to invest some money and time in transferring expertise to the local indigenous peoples. It may mean building the capacity of the proponent staff to understand and be sensitive to traditional ways of thinking. It may be as simple as providing the needed infrastructure so that the local population has a means of participating in the planning and implementation process. Of the four principles, empowerment can most easily be made part of the process, because it just requires time and money. For the same reason, however, it is also the most susceptible to being ignored or short-changed.

Intellectual Property Rights

Intellectual property rights are intended to protect the ownership of the intellectual content of the works of an individual or a legal entity. This concept is complicated when indigenous traditional knowledge is involved. By its very nature, traditional knowledge is communal, not personal. Furthermore, the intellectual property must be physically demonstrable; a written document, a recording of music, a painting or drawing, an electronic record, or some tangible item. Indigenous traditional knowledge is sometimes in this format. Statues, paintings, and drawings that embody traditional knowledge are able to be protected through copyright laws. Recordings of traditional songs, stories, and music are also capable of being protected.

Most traditional knowledge, however, is held in the minds and practices of the people. Most traditions share this knowledge freely among the community members. In fact, sharing is the main means of dissemination of the knowledge. In indigenous societies, the concept of proprietary information or of selling the information is not easily acceptable. A network of entrepreneurial developments based on indigenous traditional knowledge in the form of value-added tangible items that can be protected is available as a model from India in the newsletter "Honeybee."

Protect and transfer to indigenous communities or individuals, any value-added concepts that arise from the indigenous traditional knowledge holders as a direct result of the project.

Problems occur when traditional knowledge is a marketable commodity exploited on a large scale by non-indigenous peoples for the benefit of non-indigenous peoples, especially when there is little or no benefit returned to the original holders of the traditional knowledge. Indigenous peoples are usually happy to share their wisdom on an individual basis, but not if it is commercialized, distorted, trivialized, or otherwise debased.

Today, indigenous peoples feel that they, who are the keepers and developers of traditional knowledge, should be compensated for sharing or collecting it, just like any other professional. Governments or corporations do not always agree with the idea that indigenous peoples should be paid for their knowledge. When payment is not forthcoming, indigenous peoples may decline to share the knowledge. Thus, development projects should recognize the potential need to budget for acquisition of traditional knowledge.

Build in opportunities for indigenous peoples to benefit directly from value-added concepts derived from traditional knowledge so the indigenous community benefits from the commercial use of their traditional knowledge.

Project planners will also need to weigh the ethical pros and cons of proceeding with a project if indigenous peoples who will be affected, decline to share their traditional knowledge, whether for reasons such as proprietary interests, or lack of financial support, sacred wisdom or locations, that requires them to hold the knowledge within their own traditions. This may make it impossible to give equal weight to science and traditional knowledge.

Enable indigenous peoples to define the aspects of their traditional knowledge are for public consumption and those aspects that are private and confidential.

Traditional Rights to Resources

Indigenous traditional rights to resources claim that indigenous peoples who have lived on the land for very long periods of

time, and who have used the resources of the land for food, lodging, sacred places and events, travel routes, and other non-commercial uses, have the continuing right to the same use of those natural resources. This is an international principle that is upheld by many, but certainly not all countries. In a large number of countries, indigenous peoples are deemed not to have right to land or use of the land without clear legal title. Very few indigenous groups can demonstrate clear legal title. Even within those countries that acknowledge these rights, there is a very wide range of practice associated with them. Most of these countries call for a demonstration that the indigenous peoples lived on and used the resources continuously throughout the entire period.

In Canada, the British Columbia Supreme Court (the Delgamuukw decision) recently recognized the oral traditions, performances, stories, and legends, as evidence in court. The case recognized that in the absence of written deeds, indigenous peoples could use their own traditions as a means of demonstrating continuous use. Importantly the court further recognized that continuous physical presence was not the only criterion. Periodic, long standing cycles of visits or the presence of sacred objects or graves also demonstrated traditional rights to the land.

Respect and protect indigenous traditional rights to natural resources.

To apply traditional rights to resources in development projects is not difficult if the land will not be significantly changed. In development projects where the land is changed, travel routes are cut off, sacred places trespassed, or subsistence hunting, gathering, or fishing capacity is reduced, then indigenous rights will have been impaired or lost. A logical first step to avoid these problems is to engage the indigenous peoples in a survey of the potential problems involved in the project plans. Most of the issues will be easily addressed, but at least two may difficult. Indigenous peoples may be reluctant to disclose sacred places or special hunting and gathering areas. Yet the indigenous community will want them left alone. The traditional knowledge of the regional communities, as well as the locations that are off limits can then successfully, but without conflict be used together by the local community to define their best options.

Ask where the development would best take place, do not ask where development should not take place.

Traditional Indigenous Peoples as Part of the Land

Indigenous peoples live in traditional fashion on about 20% of the world's land mass, often in areas of nature least affected by industrial and market-based economies. Their use of the land includes subsistence, the development of culture, and a sense of identity. Indigenous peoples regard themselves as part of the land, not as owners of the land. Their inherent sense of sustainable use and protection is quite different from the view of land as a resource. Changes to the land through development projects have effects that ripple through the entire fabric of their existence. Modern development and progress is important to indigenous peoples. They understand that development projects may have a major benefit to their life styles and health, but they are also aware

that these projects pose a potential risk that may degrade their environment by removing natural resources or polluting the land on which they live. Indigenous peoples need to live and develop according to their own decisions and traditions on the same land in the face of projects that routinely alter their fundamental conditions of life.

By contrast, non-indigenous societies have generally come to view natural areas as potential commercial reservoirs of natural resources. Changes that occur in these areas are distant from most non-indigenous societies, so have no immediate effect on them. Thus, for a non-indigenous person living in a typical urban or sub-urban environment, the shift from natural areas to developed areas is rarely seen to have negative effect, and is almost always viewed as progress. In fact, natural resources are often considered wasted unless extracted and put to "use."

The survival of indigenous peoples is directly tied to the maintenance and sustainable use of a healthy and vibrant ecosystem. The earth is as a "mother", honoured for nurturing and sustaining them. From her they draw their traditions, culture, and subsistence. For most indigenous peoples, the particular land on which they were born and on which they have lived is as important to them as a mother; to take away "their land" and offer them some other parcel of land, or something else in recompense is to profoundly misjudge the essence and importance of their relationship to a specific landscape.

Recognize that indigenous peoples feel that they belong to the land, so they may not easily accept changing it, or their relationship to it, in any radical way.

Development: Differences in Perspective

One of the most difficult aspects of project planning and initiation is when the aspirations of the planners are mismatched to those of indigenous peoples. While the proponents may be convinced that their project will be of huge benefit to many people, these "benefits" may not be seen as beneficial by indigenous peoples.

Engage traditional knowledge systems before initial decisions have been taken to help predict the impacts of a project and be prepared to abandon the project or vastly modify it if there is a risk of harm to indigenous peoples.

Deep differences in perspectives about what land and its resources should be used for, often create difficulties between indigenous and non-indigenous interests in reaching mutually acceptable courses of action regarding development projects. Major projects almost always have a dramatic impact on the environment and culture. If indigenous peoples are involved, the effects are always potent. Indigenous peoples rarely want major change in the environment, because their livelihoods depend on the traditional ways of living with the land. If a forest is cleared for urban development, lumber, agriculture, or mining, the changes may be sufficient to render the traditional ways of living on the land inoperable, or ineffective. In the worst instances, great harm can be done to indigenous peoples. Projects that have the potential to cause harm include

major development projects to extract natural resources, projects to provide infra-structure support systems in both urban and rural areas, or policy changes in the way a government body deals with development projects. Handled well, and with the informed co-operation of the indigenous peoples, these projects also have the potential for great benefit.

Leave broad margins for error in predictive models, and include the socio-economic costs of the often invisible economy of "women's work" and the special vulnerability that indigenous women face.

Past practices have varied immensely in their attention to the needs of indigenous peoples. Best practices are those that are careful of the needs and rights of indigenous groups. By incorporating these best practices, and by utilizing the traditional knowledge of the people, disputes can be avoided. Specific areas to include in mutually agreed protocol include land ownership and use, traditional rights to natural resources, repair of environmental damage, impact of socio-economic factors potentially leading to dysfunction and dislocation, and significant changes in cultural systems. At the present time in many countries, development projects are a priority that sometimes supersedes indigenous human rights.

A sustainable project must ensure that no harm comes to any party from the development activity, and that in the best case, mutual benefit to all parties results. The most useful approach is to recognize that there are deep differences in perspectives, and that these differences can be viewed as opportunities to work together, rather than in conflict.

Participation

Indigenous customs vary widely from one place to another. Assuming a single approach or process will suffice for all indigenous peoples is a big mistake. For example, haggling over prices in some cultures is expected, whereas in others it is insulting. Looking into another's eyes during negotiations can be necessary or unacceptable. Sitting, kneeling, standing, and squatting all have special meaning in different indigenous cultures. Gender equality is accepted in some, not in others.

Understand the local customs and etiquette and train staff who will interact with indigenous peoples before contact.

Because indigenous peoples are, by definition, a nation or sovereign group, or self-governing body within a nation, it is especially important to include them in project planning and implementation in ways that preserve their autonomy and unique status. Thus, for projects that directly affect them and their relationship to the land, assuming that indigenous peoples are simply part of the stakeholder group, is not sufficient. They are much more tied to the land than an "interest group." On the other hand, if they are only indirectly affected, and if that affect is unlikely to change their relationship with the

land, then inclusion as a stakeholder group is sufficient, assuming their autonomy is preserved.

Distinguish between local and indigenous communities, and ensure both have roles; local communities as stakeholders in the dominant culture, and indigenous peoples as a group with special traditional rights.

Decision-making and representation in indigenous communities is usually not similar to methods employed by non-indigenous peoples. Therefore, the methods that must be employed to include indigenous peoples and their traditional knowledge in an effective manner will not be a simple extension of methods used with other non-indigenous peoples.

Make the participatory approach fit the cultural sensitivity of the indigenous community. Successful strategies variously include round tables or talking circles, training the trainers, co-management, and participatory action research. For example, in some, but certainly not all, indigenous communities, a strict hierarchy of status is maintained. The elite do not ask for or receive advice from the lower ranks. Women, in some societies, might suffer if they attempted to participate. In these situations, the head man makes all the decisions that would typically be required in a project design. A project might call for round-table discussions of all stakeholders, but to insist on it could cause real harm to people, reduce the credibility of the project, and insult the local culture.

A successful strategy to avoid these problems is to empower the local people to train their colleagues in the area of competence relevant to the project. In this model, the CIDA project develops a training module to train the trainers. Over time, the infusion of information and the development of trained people allows the project to evolve in tune with the local indigenous community. This also tends to have a more lasting impact because the local people will have adapted to local conditions and will make the project their own.

In other indigenous communities, decisions are made only on a consensus basis with all members of the community participating, including women and children. In these communities, there is a strong desire to see the equivalent participation by the personnel on a project. They want to see and talk to the people from the hands-on worker right up to and including the Chief Executive Officer of the corporation or Minister of a government. In these situations, round table or talking circles can be successfully used independently or in combination with a program of training the trainers.

Participation by indigenous peoples as autonomous groups is an essential ingredient to developing both mutual understanding and consensus to set strategic objectives, define a chain of expected results, identify underlying assumptions and risks, and select appropriate performance indicators.

A few simple questions can help guide the planning process.

Indigenous Representation

Will the project encourage the local indigenous community develop a representative group on basis of skills? What about a liaison to neighbouring communities? Will the proponent and community establish personal and professional links? Is there to be a network of communications and discussions established amongst indigenous communities and proponent? Finally, is there evidence being collected to determine if CIDA projects will have better representation of the indigenous traditional knowledge and indigenous communities, and that they are more sensitive to indigenous issues by using traditional knowledge?

Within the joint ventures or participatory research, are team members assigned from the indigenous community? Will time and work be remunerated? Will the indigenous peoples feel they can influence the project? Are women specifically recognized as members of the team? Are the special skills and knowledge of women included?

Joint Ventures

What proportion of the monitoring and evaluation of the project from the perspective of traditional knowledge is to be carried out? Are there formal or informal partnership or joint venture agreements with the indigenous community? Does the project invite the indigenous community to begin joint classification of land use, joint assessments of impacts, joint decision-making? Ultimately is there to be some form of equity share or joint venturing in the project between the indigenous community and the project?

Non-Indigenous Representation

Are local communities to be contacted and distinguished from indigenous communities? Are other stakeholders identified and represented as distinct from indigenous group? Will the discussions and negotiations use some form of round table, community mentors or other means? Finally, is the project anticipating and measuring indicators for an increased level of satisfaction among stakeholders?

Capacity Building and Capacity Maintenance

Will a socio-economic capacity needs-analysis be carried out? Are arrangements being made for quality translation? Are capacity-building workshops or training programs planned for both indigenous peoples and for project staff? Will a mechanism be identified for sustaining the capacity acquired in the project? Will financial assistance be provided so that participation will be possible by indigenous peoples? Finally, doee the project intend to collect evidence of indigenous peoples participation? Is there likely to be any socio-economic benefit or harm done to the community?

Partnering with Indigenous Traditional Knowledge Holders

Acquire and use traditional knowledge systems through indigenous peoples who are experts and respected as holders of traditional knowledge by the indigenous community. Traditional knowledge is not something that can be picked up by a non-indigenous person in a short period of time. Furthermore, it is not generally available in written form. Include indigenous peoples as integral to a project that affects them, in

both interpretation of the knowledge and as decision-makers in the project. Include traditional knowledge early and as an honest complement to scientific or western approaches.

Experience with indigenous peoples from around the world demonstrates that successfully incorporating traditional knowledge in project planning and implementation requires a relationship of trust. Trust is developed by discussions with village elders, speaking about the project in ways that can be understood by community members, working directly with the indigenous communities to develop joint plans for impact studies, mixed teams to carry out research, project planning, and other aspects of environmental and cultural decision-making. To be able to use and understand traditional knowledge requires a long-term commitment, respect for indigenous culture, and a willingness to spend the time and effort to listen and learn. Most communities are cautious about how it is to be used, fearing that it may be misinterpreted or used to damage the community. Because CIDA projects, and many other projects, require disclosure of most of the information, there may be some reluctance to share the information. When sacred sites are involved, the community may be reluctant to disclose their location, to prevent project activities from unknowingly blundering into areas that should be avoided.

Developing self-sustainability is an integral part of traditional knowledge systems. It is beneficial to include their knowledge systems in both the interpretation of the knowledge and in its implementation by relying on credible traditional knowledge holders.

Co-Management
When indigenous knowledge is used in its original context, and in partnership with science or other western technical approaches, the combination is a powerful tool. Important examples are to be found in resource management, where both science-based managers and native hunters, trappers, or fishermen work together giving equal weight to both types of knowledge. It is best when the process of project development and acquisition of traditional knowledge is seen as participation, not consultation The practice of co-management works better if a hands-off style of governing the actions of on-the-ground members of the co-management team is used. Because the traditional information base is not easily written down, members should be chosen from the non-indigenous side who are not sceptical of traditional knowledge and process. The intimate relationship and trust amongst team members needs to be maintained to keep the authority and power of co-management. In a few cases, forcing co-management on aboriginal communities caused the loss of valued traditional knowledge without proper compensation for the knowledge. Though sometimes difficult, co-management experience can be extremely positive.

Participatory Action Research
Create a partnership between traditional indigenous knowledge systems and the knowledge systems used by CIDA through complementary action plans, participatory action research, joint ventures, capacity-building and -maintenance, and co-

management techniques. Traditional indigenous knowledge about the environment usually begins with the assumption that the people have been given the responsibility to respect the wild things and to live in harmony with them. Thus, it has many aspects that complement the aspirations of sustainable project planning, and it has the advantage of long and intimate experience with the local area.

Engaging the local people in participatory action research and co-management of the project outputs can significantly enhance the knowledge base for the entire project, encourage consensus, and manage the outcomes and impacts in a community-based iterative fashion.

If science or technology is relevant to the project, the best way to integrate traditional knowledge holders is to use what is increasingly termed "participatory action research." Western and traditional knowledge practitioners operate from the very beginning as equal partners, but with different roles. The development of indigenous knowledge in the project would take shape as follows:

1. research and later monitoring is carried out by local people in the local language
2. research and monitoring is controlled by the community through a community steering committee
3. the research or monitoring teams and the steering committee evolve the interview protocol and guidelines for the project
4. all information is verified by the steering committee and the interviewees first, then by the Elders or other designated traditional knowledge experts

Credibility of Indigenous Traditional Knowledge

Traditional knowledge that comes to a project is a product both of the people from generations past and of the present-day people who preserve and augment its accuracy. However, it is transmitted to the project only by present-day people, not all of whom have the capacity to transmit the knowledge well. When designing a project it is well to consider a few points:

1. Assess the credibility of sources of traditional knowledge by using the community as a source of credentials.
    o Does the project intend to ensure that the traditional knowledge holders who will be partnering with the project come with community blessing?
    o How will the project ensure that the community agrees on how to make decisions?
    o What will the project do to come to an agreement with the community decision-making process?
    o Does the indigenous group need to establish a legal entity?
    o Will the indigenous knowledge system become a credible aspect of the CIDA decision-making?
    o Finally is the project planning to assess acceptance for the project by the indigenous community?

2. In finding a balance with indigenous traditional knowledge and western knowledge, a formal agreement should be established on the relationship between knowledge bases?
    o   How will they be weighted?
    o   How does the project plan to integrate them?
    o   Does the project plan to provide the community with a science/management interpreter/advisor, if it wishes to have one?
    o   What processes will be established in the project to ensure the community feels it has a good understanding of how the two knowledge bases will work together? How will the project be described to the community in terms that the indigenous peoples can understand?
    o   What safeguards will the project use to assess if the community fully understood the project and its implications?

Using science and traditional knowledge together in co-management or participatory action research can be a powerful tool to improve the effectiveness of projects, but it requires a relationship based on trust and respect for each other's information and for the different methodologies used.

Aquisition Protocol

Recognize the autonomy of indigenous peoples by observing their protocol for what is modern, ancient, public, and private traditional knowledge, by respecting their classification of land use, including sacred and traditional uses that may preclude development, and by acknowledging their traditional rights to resources and intellectual property rights.

Because the concept of ownership, as practised in western societies, is not often not a part of the traditions of indigenous peoples, finding ways to respect their sensibilities about the knowledge is important to project success. Indigenous peoples also expect to receive information and benefit back for the effort that put into providing non-indigenous peoples with their knowledge. This can be as simple as ensuring that copies of research reports are given to the community, or it can be as dramatic as providing the infrastructure to allow the indigenous community to develop its own GIS hardware and software.

Protocols for acquisition of traditional knowledge should be defined by the indigenous community and agreed to by all parties. Protocols can be quite simple but are usually based on two aspects; information already available, and information still to be acquired. The main variables of the protocol define who is to be involved, the way in which the participants are to be involved, the type of information to be acquired or that is off-limits, the use to which the information is allowed to be put, who owns and controls the use of the information, and finally, what financial arrangements are made for acquisition and subsequent use (especially if revenue is to be generated directly from the use of the traditional knowledge in the form of products or services).

Protocols for acquisition of traditional knowledge should be defined by the indigenous community and agreed to by all parties.

Language translation can be difficult. One technique that helps is to have translation made from one language to another then back again to check its accuracy. Unfamiliar terms (such as ionizing radiation) may not have a cognate term in an indigenous language. An Elder or a group of Elders can be asked to make up a new term and agree on its translation.

Checklist of Important Points

1. Traditional Rights:
   o intellectual property rights,
   o traditional rights to resources, and land ownership
   o no loss of rights to indigenous peoples without appropriate compensation
   o traditional knowledge access agreements
   o community empowered through meaningful consultations and capacity-building and -maintenance
   o community knowledge treated with equity and respect
2. Impact Assessments:
   o identification potential risks from societal impacts of alcohol, drugs, diseases, migration to cities, exposure to new cultural environments
   o community participation in identifying potential risks to the indigenous community from direct impacts on the environment
   o joint cost-benefit analysis
   o joint assessments of impact
   o processes minimize damage and maximize benefits to indigenous peoples
   o measurement of sustainablility
3. Communication:
   o community and project each define spokesperson to media
   o community participation in the definition of team spokespersons and roles
   o on-going means of adjusting the roles of members of the indigenous community and the proponent as interpreters of information to the community and to the media
   o a constant flow of information to relevant and interested people and stakeholder groups
   o language translations for indigenous groups
4. Conflict Resolution:
   o conflict resolution mechanism determined early and jointly with the community
   o means to handle conflicts early, rather than late
   o means to establish a third party arbitrator or mediator or ombudsman as a means of conflict resolution if needed

Scheduling with Indigenous Peoples

Develop a time schedule with early-warning indicators, and means of communication, including translation to indigenous tongues, that is sensitive to indigenous needs and capacities.

Indigenous peoples who live on the land are also tied to the rhythm of the land, its seasons, and the movement of wildlife. For many people, the hunt or the gathering occurs at a particular time of year, or it does not happen. Failure to meet these cyclic imperatives can be dangerous for indigenous peoples. Therefore it is essential that in planning the schedule for a project, if indigenous peoples and their knowledge are to be involved, a flexible schedule will be required. This can be worked out in advance with the local people, but may need some interpretation to know what their priorities will entail.

Early warning indicators are a good idea for both sides. All parties can agree that at certain stages a milestone should be met. Problems usually arise when the agreed on milestone is missed. Work schedule may be defined by time frames, but these are often not effective because indigenous people have their own internal needs and schedules that are not easily adjusted. Instead of time scales, it is sometimes better to use indicators based on their traditions. For example, a task will need to be completed before the first harvest, but after the solstice festival. This also explicitly acknowledges that indigenous traditions and necessary community work have been established as part of the project schedule.

Instead of using time scales in project planning, it is sometimes better to use indicators based on the traditions of indigenous peoples.

WHEN SHOULD INDIGENOUS TRADITIONAL KNOWLEDGE BE INCLUDED?

Indigenous traditional knowledge and indigenous people who hold and can use it effectively should be included whenever a project directly or indirectly affects indigenous peoples. The project might be initiated by or be about indigenous peoples. More likely the project will affect the land and environment, or the cultural and socio-economic conditions of the indigenous peoples.

Often indigenous peoples are nearly invisible. Sometimes they are difficult to locate or recognize because they live in remote areas to be affected by the project, or because they actively avoid contact with outside intruders. Sometimes they are simply not an influential group in the local system and so are deemed to be unimportant locally. It will usually be obvious if indigenous peoples are going to be affected. If it is not clear, however, two aspects need to be investigated.

First, are there indigenous peoples in the area? Clues include working with large areas of untouched land, handcrafts or art objects that are not obviously a part of the dominant culture, and ethnically different people with a different language within the local community. Sources of information include non-governmental organizations that work with indigenous peoples and church groups.

Secondly, if there are indigenous peoples in the area, are they going to be affected by the project? A simple check list includes the following:
1) Are there going to be environmental changes, even subtle ones?
2) Will there be a shift in the economy?
3) Will there be any cultural or social interaction?
4) Does the project involve communication techniques that could require language translations or that might influence policies on language?

If there are any indicators that indigenous peoples may be present, and the answers to any of the questions about the nature of the project is yes, then the project should seriously consider using traditional knowledge.

Weave indigenous peoples and their traditional knowledge systems as full partners into the design of a project when indigenous peoples are directly or indirectly affected by the project.

RISK ANALYSIS

CAUSE NO HARM
Decision-Making

In the best development projects, objectives and subsequent indicators of success are shared and agreed amongst all project participants and stakeholders.

When the environment of indigenous peoples or their normal way of life is radically changed, the potential to do great good or great harm weighs in the balance. Inviting the community to be a part of the final decision-making process allows traditional wisdom to come into play. The degree to which the community, or its representatives, is to have a decision-making role needs to be balanced with the risk to the community. The most difficult decisions are when the project benefit to the non-indigenous community rises and simultaneously escalates the risk to the indigenous community. In the best situations, of course, the use of all knowledge bases should be used to reduce the risk to anyone or any community. This is not always possible. Projects should build in safeguards that provide increasingly important decision-making capacity for indigenous peoples as the risk increases to their communities. This will ensure that deep-seated or implicit understandings get used directly in the decisions.

Many indigenous peoples prefer to remain in a subsistence or near-subsistence relationship with the land. Others might like a mixture of a traditional relationship with the land augmented significantly by technological advances. How will the project resolve these differences within the community?

Build in mechanisms that provide increasingly important decision-making capacity for indigenous peoples as the risk increases to their communities.

Legislation and Policy
In planning any project, it is important to assess the likelihood of the project reaching a successful conclusion. If indigenous peoples are directly or indirectly influenced by a project, and if the project's objectives requires these indigenous peoples to benefit, or at least not harmed by the project, then the host governmental context is important.

National policies of the host country should:

1. encourage sustainability policies for indigenous culture and traditional rights to resources,
2. fund capacity-building amongst their indigenous peoples, and
3. separate government agencies that exploit from those that regulate to avoid inherent conflicts of interest.

Cause no harm to indigenous peoples because of working within another government's priorities.

Project planners have come to understand that the most likely way of reaching a consensus is to establish multi-stakeholder processes. Not all countries or indigenous groups participate in these arrangements easily. Sometimes this is because indigenous groups have different constitutional rights, operate under separate legislation, or are governed by different polices and practices than members of the dominant culture. Failure to understand these specific differences can undermine the best intentions to include indigenous peoples in multi-stakeholder processes.

Understand the host jurisdiction's laws and regulations regarding indigenous peoples including constitutional rights, relevant legislation, policy statements, and recent practices.

Bridging the Gap

Acceptance of Traditional Knowledge
The unique challenge that accompanies the inclusion of indigenous peoples and their knowledge systems is the inclusion of indigenous stakeholders in project design and decision-making that ensures appropriate access to information, representation, and meaningful consultation. One of the main reasons why indigenous peoples and their knowledge systems have not yet figured prominently in development projects is that they are not understood well enough to know how to include them. Indigenous traditional knowledge is an important part of everyday life in traditional communities. It is expressed in the language, in the practices, and in the actual transmission of information. Indigenous traditional knowledge is also a way of looking at life and the world around us, hence the concept of a knowledge system.

When science is used to predict future events, the system has an array of important procedures, checks of accuracy, and demands for logical consistency. A clear statement of assumptions must accompany any methodology used, whether it is a statistical treatment or a sampling procedure. Only after all this is understood, can a prediction be made with any confidence. To reach the stage where this can be done well, a scientist spends many years of study and refinement.

The same is true of indigenous traditional knowledge. When it is to be used to predict the effects of some actions, or to assess the impact of a project, there are inherently important means by which the traditional knowledge practitioner understands the confidence with which he or she can make a prediction. The novice or uninformed can not use indigenous traditional knowledge any more effectively than a novice could use scientific knowledge. In both cases, facts and information can be assembled, but the wisdom and understanding that both systems allow are found only after years of study. Engage traditional knowledge practitioners the same way western knowledge engages

scientists and other professionals, to make full use of traditional knowledge and its multi-generational wisdom.

Decision-making is the key ingredient in controlling the destiny of a project. The final decisions in any project are usually made by the person who has the largest financial stake in the project. Technical information is assembled, analysed and synthesized. Recommendations and conclusions are formed and sent to the final decision-makers. Indigenous traditional knowledge can be similarly treated. If the acquisition and interpretation has been done well, the decision-makers will have a much stronger resource of information on which to make decisions than if it had been omitted.

While facts and data can be gleaned from traditional knowledge, its true power is the capacity to reach into the unknown and make predictions. Assessing the acceptability of predictions made by indigenous knowledge holders to decision-makers is an important facet of risk assessment.

Cultural Insensitivity
There are a number of potential pitfalls in using traditional knowledge. One of the most common is cultural insensitivity. This may be expressed by inappropriately taking a posture of cultural superiority, or simply considering the cultural differences as unimportant. Avoid a strategy of including indigenous peoples too late or in a trivial manner. By including them before the critically important decisions have been taken, possible resentment or hostility is avoided. Another bad mistake is to include aboriginal people and their knowledge as a token gesture, their advice being largely ignored. Compounding this strategy with a patronizing attitude ("Everything will be all right.") can lead to unnecessary misunderstandings.

Avoid a strategy of including indigenous peoples too late or in a trivial manner; it places both the indigenous peoples and the project at risk.

The basic assumptions of traditional knowledge are quite different from those of science-based or technology-based approaches, so the results may be different. Compared to scientific knowledge, for instance, traditional knowledge tends to be more powerful for its local accuracy and its long term insights. Scientific knowledge, on the other hand tends to be more capable of interpreting the influences of external and widespread factors that transcend the ken of local communities. Thus, instead of pitting the two knowledge bases against each other, it is more advantageous to use their complementary strengths to bolster the weaker aspects of the other knowledge base. Together the two form a very powerful knowledge system.

Social Responsibility and Economy

Care must be taken when designing projects that depend on monetary commerce (a normal concept) for their long-term sustainability (a desirable outcome) in areas where there are indigenous communities that do not have a market economy or that have little familiarity with

commercial ventures. Most people who have lived or worked in the tropics are familiar with 'haggling' or 'negotiable price.' In many cultures, the activity of coming to an agreement over what is a fair price for an object is an important and integral part of the social aspect of doing business. To omit this process can be disappointing or even insulting.

Yet for many indigenous communities, especially those in island areas, or in remote jungles, or in the far north, resources are viewed as shared as soon as they are acquired. There is no haggling, and no money is exchanged in sharing a fresh-caught fish or whale. It is a part of the tradition that when someone else makes a similar catch, it will also be shared in a similar manner. (Usually there is a traditional definition of what portion goes to the hunter or gatherer.)

A person from a community that is based on resource-sharing is a very poor negotiator in a project with people accustomed to negotiating with money. In fact, they will use usually acquiesce immediately to the first offer in a haggling session.

Thus, some indigenous communities are extremely vulnerable to unfair exploitation, especially those living close to the land and primarily on a subsistence base. Safeguards should be built in to minimize risk of unfair exploitation.

Build in safeguards to protect indigenous communities that are extremely vulnerable to unfair exploitation because of lack of experience with, or non-acceptance of, monetary-based systems of resource sharing.

SUMMARY

Many of the policies and practices of the Canadian International Development Agency promote and support the concept of including traditional knowledge systems in project planning and implementation. Because indigenous people are vulnerable to negative impacts of development project, and because their knowledge bases can significantly improve the understanding of these impacts, including traditional knowledge can improve project results, outcomes, and impacts.

Indigenous peoples are self-identifiable as a people, wholly or partially self-governed, and live within larger nations. Indigenous traditional knowledge is a way of life and a process of acquiring and passing on knowledge and understanding. While it contains the database of knowledge it is also a structure of values, stories, language, and social relations; an experience-based relationship with family, animals, places, spirits, and the land. It is a world view. As with any knowledge system, the power of the system is rooted in the experience of many people who have found a means to accumulate that experience into a body of practices and processes that allow greater insight into the world around us than any one person can hope to achieve independently. Traditional knowledge uses indirect indicators that over centuries have proven to predict events accurately. Traditional knowledge models may be mechanistic, but are equally likely to be non-secular or metaphysical explanations.

Indigenous traditional knowledge does not need to be included in every CIDA project, but where an indigenous community is directly or indirectly affected, it is appropriate and important to include it. Respect, trust, equity, and empowerment are the fundamental principles on which the use of indigenous traditional knowledge must be based to achieve successful integration in project planning and implementation. Traditional rights, different concepts of ownership and proprietary use, complementary knowledge bases, and many other factors make the use of traditional knowledge an excellent opportunity for partnership in the planning and implementation of CIDA projects. These same differences however, make it imperative that acquisition and use protocols be established with the indigenous communities as part of project design. Despite the potential advantages, there remain many barriers to integrating traditional knowledge in project planning, such as cultural insensitivity and lack of acceptance of traditional knowledge as valid knowledge, especially because it is partly metaphysical. Appropriate inclusion of the traditional knowledge bases, however, significantly reduces the potential to cause harm and increases the potential to benefit indigenous peoples projects.

SELECTED CIDA PUBLICATION TITLES

CIDA, 1992. CIDA's Policy for Environmental Sustainability.
Provides a quick overview of CIDA's objectives and commitments for sustainable project development in developing countries.

CIDA, 1997. CIDAs Policy on Meeting basic Human Needs.
Because this is CIDA's prime directive, it is an important document that also touches on the CIDA's construction of Canadian values. It includes a statement of goals and objectives, approaches and principles of action, strategies and a process of monitoring and evaluation.

CIDA, 1997. The Why and How of Gender-Sensitive Indicators. A Project Level Handbook.
This is a valuable reference both for its excellent treatment of gender issues, but also for its concise explanation of indicators of success as used by VIDA.

CIDA, 1997. Guide to Gender-Sensitive Indicators.
A companion volume to the "Why and How of Gender-Sensitive Indicators," it is an exhaustive treatment for practitioners.

CIDA, 1997. Handbook on Environmental Assessment of Non-Governmental Organizations and Institutions Programs and Projects.
In developing projects, both CIDA staff and Canadian NGOs must abide by Canadian regulations as defined by the Canadian Environmental Assessment Act. This booklet describes the process of deciding both if it applies and how to apply it when necessary. Indigenous issues are a major consideration in environmental assessments if indigenous communities are involved.

CIDA, 1997. Indigenous Peoples and Biodiversity; An Overview of Global Change and Challenges. (Prepared for CIDA by the Strategic Network for Indigenous Peoples. Russel Barsh)
This report is especially valuable for its analysis of twenty case studies from different areas of the world.

CIDA, 1998. Performance Analysis and Allocation Criteria and Process: Program Funded NGOs.
This is an especially useful document for NGOs because it provides a detailed view of how CIDA assesses NGO suitability for funding support. This is a key factor in judging a proposal to so work with CIDA. Many NGOs work with indigenous people.

CIDA, 1998. Consultation: A Practitioner's Perspective.
This is an instructional manual prepared by INTERSOL Consulting Associates Limited to assist CIDA personnel in understanding the elements of effective consultation.

CIDA, 1998. Cultural Dimensions of Sustainable Development.
Provides a balanced overview of CIDA's strategies and initiatives, a summary of the contributions from CIDA, and key resources both national and international.

APPENDIX 1.

THE CIDA CONTEXT

CIDA Project Planning and Implementation

CIDA supports development projects with two different kinds of resources; financial aid and expertise. Development projects are either conceived within CIDA, or proposed to CIDA by other organizations, agencies, groups, or individuals. All of these projects are continuously guided and assessed, but are not managed operationally by CIDA. Because of this, there are key steps where CIDA shapes or influences projects.

The first of these steps is in the pre-planning stage - where the initial decision is made to consider a project idea. The next in CIDA's system of project approvals is the design and planning stages. For approval by the executive levels of CIDA, a project must have a full and detailed description of its purpose, how it fits into CIDA's mandate and priorities, what the intended methods, results, and impacts are likely to be, and of course, how much it will cost. The third step is during implementation. Projects vary widely in how they report back on progress, but fundamentally, CIDA monitors progress towards achieving the expected results based on performance indicators. Regular reporting allows modification of the project during implementation, if necessary. CIDA also develops a project closing report, the primary mechanism to report on results of completed projects. Project closing reports are viewed as an opportunity to learn from the project's successes and failures, and to build these lessons into subsequent projects.

Over the years, CIDA has developed a framework within which project planning and implementation is carried out. This framework evolves continuously, but is founded in Results Based Management.

Results-Based Management in CIDA
In CIDA project planning and management, the model used is called Results Based Management. Results Based Management is intended to direct projects by setting realistic goals in the form of results statements, and monitoring progress towards those results. The results are defined in the short, medium, and long-term as outputs, outcomes, and impacts respectively. The design and implementation of all projects is expected to reflect a results based management format.

CIDA policy on results based management provides a "results chain." The idea is that a project (or program) provides resources, such as money or people, to a project because it agrees with the goal(s) and objectives of the project. These resources (inputs) are used to undertake some activities such as co-ordinating a building project or organizing training tasks. The activities result in an immediate output such as a sewer system or trained personnel. In the medium term, the existence of the sewer or the trained personnel will have an outcome in the community or larger region, such as better

handling of wastes or better health care. Finally, in the long term, the impact of the work of projects will be improved health of the general population.

In simple terms, the money, time, and effort that people invest in a project produces change to the benefit of the country or region. From a development agency perspective, this change is a development result and the money, time, and effort (inputs and activities) are the operations of the project. Thus, operational results produce development results.

There is a relatively high probability of achieving the expected output because it is under the direct control of the project. Outcomes are less controlled so have a higher risk of failure. And while impacts are hoped for effects, many external factors can interfere before the desired impact is achieved, placing them at the highest risk. This approach can be used effectively by involving the project team and other key stakeholders in asking questions such as:

1. Why are we doing this project?
2. What results do we expect to achieve for the resources being invested?
3. Who are the beneficiaries and what are the different needs of the target group?
4. How will progress towards the achievement of results be achieved?

Results Based Management Model
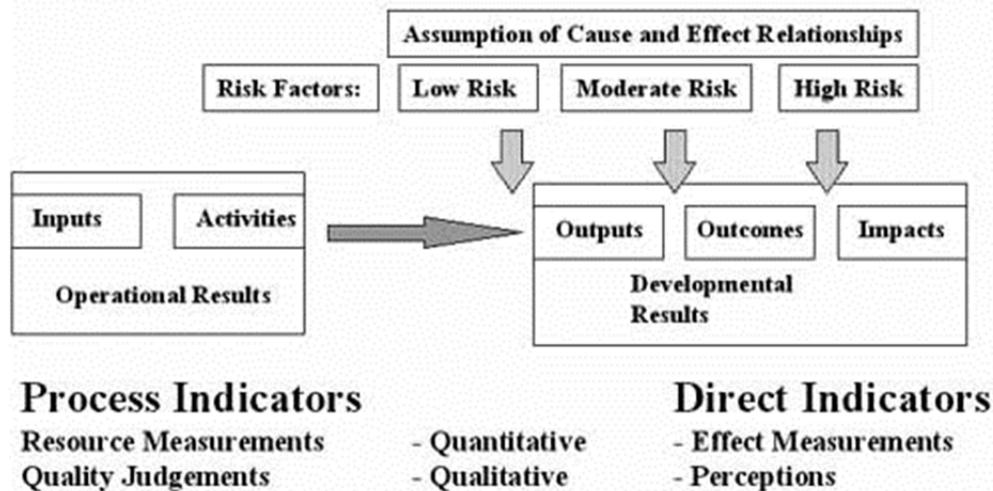
The CIDA Results Chain Premise:
Adding Resources and Planned Actions Produces
Beneficial Short, Medium, and Long-Term Change

APPENDIX 2.

COMPARING INDIGENOUS TRADITIONAL KNOWLEDGE AND SCIENTIFIC KNOWLEDGE

Traditional knowledge has value and validity. It provides the basis for much of modern medicine and centuries of herbalist knowledge accumulated in the early writings of travellers, clerics, and natural historians. That ecological knowledge exists in traditional knowledge for thousands of years was first pointed out publicly in the Brundtland Commission in 1987. Very recently, the Biodiversity Convention, Agenda 21, the Rio Declaration and Forest Principles provided a contemporary context for traditional knowledge.

It is not appropriate to compare scientific and traditional knowledge as simple equivalents. Too often, traditional knowledge is incorrectly made parallel only to "science". Science is but a small part of non-indigenous knowledge. Similarly, to suggest that indigenous traditional knowledge is only the equivalent of science is to diminish incorrectly the strength and breadth of indigenous traditional knowledge. Whereas scientific practice generally excludes the humanistic perspective, traditional knowledge makes no distinction between secular and sacred knowledge. Thus, the suggestion that traditional knowledge should be characterized as "traditional science" diminishes its breadth and value.

The temptation to compare scientific and traditional knowledge comes from non-indigenous peoples collecting traditional knowledge as if it were an artifact, and without the contextual elements. For example, the Inuit have a far richer and more subtle understanding of the characteristics of ice and snow than do non-indigenous peoples. In fact, some Inuit classification is accessible only by virtue of its relationship to human activities and feelings. In South America, some indigenous tribes have a classification system for trees that identifies many species that science does not, and appears to miss obvious species that science recognizes. Once again the classification systems have a different set of assumptions, so are not directly comparable. The species that appear to have been missed by indigenous peoples, turn up as recognizable in other contexts for the native people. The "extras" from a scientific perspective are identified by native people either because science simply missed them, or because ecological variants have equal importance to genetic species from a traditional standpoint. These comparisons sometimes incorrectly lead science practitioners to trivialize traditional understanding.

In many projects, the course of the activities and the critical decisions about what happens next is significantly influenced by the information that is collected, how that information is made available to others, how it is interpreted and finally how it is communicated to both the decision-makers and the stakeholders. Most participants will approach this question with an open and honest mind, but there are often great differences in experience and background that can markedly affect the way information is handled.

Fitting science and traditional knowledge together requires an appreciation of their differences. Experience demonstrates that many non-indigenous people equate science and other western methods, such as in management of resources. This is not correct. Management in a non-indigenous style is often based on scientific findings, but it is not science. Indigenous and non-indigenous management styles are much more similar. To illustrate the distinct differences between science (as a research method to acquire knowledge and understanding) and traditional knowledge (as a method to acquire knowledge and understanding), the following tabulation describes some of these differences.

Table 1. Differences in Style

Indigenous Traditional Knowledge	Science
The way it is	Best approximation or working model
Combining secular and sacred	Secular only
Teach by story telling	Didactic, or lesson-based
Experiential learning	Formal education
Oral or visual record	Written record
Intuitive	Analytical
Predictions based on indicators	Prediction based on data in models
Holistic (integrated)	Reductionist (subsets or samples)
Subjective	"Objective"

Table 2. Differences in Use

Indigenous Traditional Knowledge	Science
Lengthy acquisition of information	Rapid acquisition of data
Long-term wisdom (extrapolation)	Short-term prediction (interpolation)
Powerful locally	Weak locally
Weak in general principles over wide region	Powerful in general principles over wide area
Relationship-based	Data-based
Working level is value-added observation	Working level is hypothesis and theory
Classification based on mix of ecology, genetic relationships, and practical use	Classification based on genetic relationships only
Investigates and uses metaphysical	Excludes metaphysical

APPENDIX 3.

USEFUL LITERATURE

The selections included in this list are intended to assist the reader in broadening information on topics in the handbook and also to suggest where case studies can be found. There are very few titles that directly describe how to include traditional knowledge in development projects, but this list includes most that are available. Finally, because indigenous resource rights, indigenous intellectual property rights and land ownership are complicated topics, some of the references refer to these issues.

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APPENDIX 4.

SELECTED LIST OF
CENTRES OF INDIGENOUS KNOWLEDGE.

ARCIK - African Resource Centre for Indigenous Knowledge (Nigeria)
Nigerian Institute of Social and Economic Research, PMB 5 - UI Post Office, Ibadan, Nigeria

BARCIK - Bangladesh Resource Centre for Indigenous Knowledge (Bangladesh)
IARD, 5/13, Block E, Lalmatia, Dhaka - 1207, Bangladesh

BRARCIK - Brazilian Resource Centre for Indigenous Knowledge (Brazil)
UNESP, Dept. Biologia, 14870.000 Jaboticabal, SP, Brazil.

BURCIK - Burkina Faso Centre for Indigenous Knowledge (Burkina Faso)
INNS B.P. 5154, Ouagadougou, Burkina Faso.

CARICKS - Centre for Advanced Research on Indigenous Knowledge Systems (India)
P.O. Box 1, Swaraswathipuram, Mysore 570009, India.

CECIK - Centre for Cosmovisions and Indigenous Knowledge (Ghana)
c/o T.A.A.P., P.O. Box 42, Tamale, Northern Region, Ghana

CIKARD - Centre for Indigenous Knowledge for Agriculture and Rural Development (United States)
318 Curtiss hall, Iowa State University, Ames, Iowa. 50011, USA

CIKFAB - Centre for Indigenous Knowledge Fourah Bay College (Sierra Leone)
Department of Sociology, Fourah Bay College, University of Sierra Leone, Freetown, Sierra Leone.

CIKFIM - Centre for Indigenous Knowledge in Farm and Infrastructure Management (Nigeria)
Centre for Food and Agricultural Strategy, University of Agriculture, Private mail Bag 2373, Makurdi, Nigeria.

CIKIB - Centre for Indigenous Knowledge on Indian Bioresources (India)
c/o Institute of Ethnobiology, National Botanical Research Institute, P.O. Box 436, Lucknow 226001, India.

CIKO - Cameroon Indigenous Knowledge Organisation (Cameroons)
P.O. Box 170, Buea, South West Province, Camaroon

CIKPREM - Centre for Indigenous Knowledge on Population Resource and Environmental Management (Nigeria)
Department of Sociology and Anthropology, University of Nigeria, Nsukka, Nigeria.

CIRAN - Centre for International Research and Advisory Networks (Netherlands)
P.O. Box 29777, 2502 LT The Hague, The Netherlands

CTK - Centre for Traditional Knowledge (Canada)
240 McLeod St, 3rd Floor east, Ottawa, Ontario, K1P 6P4

ELLRIK - Elliniko Resource Centre for Indigenous Knowledge (Greece)
Medical School, Department of Social Medicine, University of Crete, P.O. Box 1393, Heraklion, Crete, Greece.

GERCIK - Georgia Resource Centre for Indigenous Knowledge (Georgia)
Institute of Botany, Georgian Academy of Sciences, Kodjorl schosse #1, 380007 Tbilisi, Georgia.

GHARCICK - Ghana Resource Centre for Indigenous Knowledge (Ghana)
School of Agriculture, University of Cape Coast, Cape Coast, Ghana.

ICIK - Institutional Consortium for Indigenous Knowledge (United States of America)
The Pennsylvania State University, 254 Chambers building, University Park, PA 16802, USA

INRIK - Indonesian Resource Centre for Indigenous Knowledge (Indonesia)
UPT Inrik-Unpad, Ruang K-3, JI, Dipati UKUR 35, Bandung 40132, West Java, Indonesia.

INSERC - Indigenous Resource Study Centre (Ethiopia)
Adis Adaba University, P.O. Box 1176, Adis Adaba, Ethiopia.

KENRIK - Kenya Resource Centre for Indigenous Knowledge (Kenya)
The National Museums of Kenya, P.O. Box 40658, Nairobi, Kenya.

LEAD - Leiden Ethnosystems and Development Programme (Netherlands)
University of Leiden, P.O. Box 9555, 2300 RB Leiden, The Netherlands.

MARCIK - Madagascar Resource Centre for Indigenous Knowledge (Madagascar)
Centre d'Information et de Documentation et Technique, B.P. 6224, Antananarivo 101, Madagascar.

MARECIK - Maasai Resource Centre for indigenous Knowledge (Tanzania)
Simanjiro Animal Husbandry Vocational Training Centre, P.O. Box 3084, Arusha, Tanzania

NIRCIK - Nigerian Centre for Indigenous Knowledge (Nigeria)
Institute for Agricultural Research, Ahmadu Bello University, PMB 1044, Zaria, Nigeria.

PHIRCSDIK - Philippine Resource Centre for Sustainable Development and Indigenous Knowledge (Philippines)
Philippine Council for Research, Forestry and Natural Resources Development, Paseo de Valmayor, P.O. Box 425, Los Banos, Laguna, The Philippines.

REPPIKA - Regional Program for the Promotion of Indigenous Knowledge in Asia (Philippines)
International Institute of Rural Reconstruction, Silang, Cavite 4118, The Philippines.

RIDSCA - Mexican Research, Teaching and Service Network on Indigenous Knowledge (Mexico)
Government centre.Colegio de Postgraduados, Campus Puebla, Apartado Postal I-12, C.P. 72130, Col. La Libertad, Puebla, Pue. Mexico.

RURCIK - Russian Resource Centre for Indigenous Knowledge (Russia)
EkoNiva, P.O. Box 1, Nemchinovka -1, Moscow Region, Russia 143013.

SARCIK - South African Resource Centre for Indigenous Knowledge (South Africa)
The Institute for Indigenous Theory and Practice, P.O. Box 2355, Somerset West, 7129 South Africa.

SLARCIK - Sri Lanka Resource Centre for Indigenous Knowledge (Sri Lanka)
University of Sri Jayewardenapura, Forestry Building, Nugegoda, Sri Lanka.

URURCIK - Uruguayan Resource Center for Indigenous Knowledge (Uruguay)
CEDESUR P.O. Box 20.201, Sayago, Montevideo, 12,900, Uruguay

VERSIK - Venezuelan Resource Secretariat for Indigenous Knowledge (Venezuela)
Centre for Tropical Alternative Agriculture and Sustainable Development, University of the Andes, Núcleo 'Rafael Range', Apartado Postal #22, Trujillo, Venezuela.

YORCIK - Yoruba Resource Centre for Indigenous Knowledge (Nigeria)
Centre for Urban and Regional Planning, University of Ibadan, Ibadan, Nigeria

APPENDIX 5.

USEFUL INDIGENOUS KNOWLEDGE WEB SITES

The following are a few of the most important indigenous knowledge web sites to be found on the Internet. When searching for information the term "aboriginal" tends to be used by Canada, Australia, and New Zealand, "Native American" or "Indian" by the United States of America, and "Indigenous" by the rest of the world. This can be helpful in specifying your search.

Organization	WebSite
Aboriginal Canada	Elders Traditional Knowledge Portal
Atlantic Policy Congress of First Nations Chiefs	Policy work for Mi'kmaq, Malisset, Innu, and Passamaquody First Nations
Aurora Research Institute	A division of Aurora College
Australian Institute of Aboriginal and Torres Strait Islander Studies	Indigenous Cultural and Intellectual Property Rights
Aseniwuche Winewak Nation of Canada	Consultation and Traditional Knowledge
Bill's Aboriginal Links	List of TK and other aboriginal information
Canada`s Polar Life (U of Guelph)	Indigenous taxonomy, mythology, Tree of Life, etc.
Canadian Arctic Resources Committee (CARC)	Long-term environmental and social well-being of Northern Canada and its peoples.
Centre for Indigenous Environmental Resources	Sustainable First Nations Communities and a Healthy Environment
Centre for Indigenous Knowledge for Agriculture and Rural Development (CIKARD)	A Center within Iowa State University
Centre for World Indigenous Studies	Wider understanding and appreciation of the ideas and knowledge of Indigenous peoples
Convention on Biological Diversity – Article 8(j)	The cop out article defaulting to national legislation
Danish International Development Assistance (DANIDA)	Reducing global poverty and helping people to take charge of their own destiny
Dene Cultural Institute	Coordinating research and education to promote Dene culture, languages spirituality, heritage, tradition and customs

Eagle's Nest Indian Village	[Advisory and Advocacy services to all 7 nations in Treaty 7](#)
EJISDC	[Electronic Journal of Informaiton Systems in Developing Countries](#)
Environment and Natural Resources NWT Canada	[Featuring a traditional knowledge annual report](#)
Four World's International Institute	[A TK resource base for information and assistance](#)
Gwich`in Social and Cultural Institute	[Gwich'in Traditional Knowledge Policy](#)
Honey Bee	[A Newsletter of Creativity and Innovation at the Grassroots](#)
Honour the Earth	[Native-led organization: geographic and political isolation; funding for change](#)
Igloolik Research Centre	[A research facility of Nunavut Arctic College](#)
Aboriginal Affairs and Northern Development Canada	[Re-named from Indian and Northern Affairs](#)
Indian Specific Claims Commission	[Renamed from the Indian Claims Commission, now disbanded](#)
Indian World	
Indigenous Environmental Network	[Native peoples of the Americas organization for education, coalition building, and action](#)
First Peoples World Wide	[Originally called Indigenous Keepers Program](#)
Indigenous Knowledge and Development Monitor	[Archive location for the Monitor](#) (1993 to 2001)
IBIN	[Indigenous Peoples Biodiversity Information Network](#)
International Alliance of Indigenous and Tribal Peoples of the Tropical Forests.	[World wide network fighting for indigenous and tribal forest peoples' rights](#)
International Development Research Centre, Canada	[Canadian government research organization working in many aeas including traditional knowledge](#)
Inuit Circumpolar Conference	[Multi-national NGO linking 15,000 Inuit worldwide](#)
KIVU Nature Inc.	[A source for information on traditional knowledge and environmental assessment guidelines](#)
Metis CentreMetis Nation	[Carries out research on traditional](#)

	[knowledge and its future Downloadable information on traditional knowledge](#)
Native Science	[Began with the Arctic Contaminiation Conference and carries out TK research in the Arctic](#)
Native Web	[Resources for Indigenous Cultures from around the World](#)
Native Alaska	[Alaska Native Heritage Center representing 11 cultural groups](#)
American Indian Heritage Foundaiton	[Established in 1973 to provide relief services to Indian people nationwide](#)
Native Net	[A resource for native craft infromation](#)
Nevada Indian Environmental Coalition	[See the Tribal Court Clearinghouse](#)
North American Native Online	[The resource center for Native Art](#)
Nclear Waste Management Organization	[Featuring KIVU photos and video](#)
Parliament of Canada	[TK and Intellectual Property Rights](#)
Samefolket (Sweden)	[Cultural resources for the Same (in Swedish)](#)
Santa Rosa Carib Community of Trinidad and Tobago	[One of the few Carib communities left in the West Indies](#)
Schoolnet First Nations Web Site	[A program of the Saskatchewan Regional Management Organization](#)
Traditional Knowledge Digital Library	[Has informaiton on bio-piracy of traditional knowledge for medicines](#)
UNESCO (Case Studies)	[Database of best practices on Indigenous Knowledge (no longer maintained)](#)
United Nations University TK Initiative	[Resources, news, TK and climate change, newsetter, pdfs of treaties, etc.events](#)
Wildlife Management Advisory Council (Yukon)	[To protect and conserve wildlife, habitat and traditionall Inuvialuit use within the Yukon North Slope](#)
World Bank	[The World Bank Africa program (47 countries)](#)
World Conservation Union (IUCN)	[The IUCN is a multi-national governmental organization and its work is important to many indigenous peoples](#)
World Intellectual Property Organization	[Traditional Knowledge as intellectual property is fraught with issues. The WIPO has made some progress](#)

APPENDIX 6.

BEST PRACTICES FOR PROJECT PLANNING
WITH INDIGENOUS TRADITIONAL KNOWLEDGE

Best Practices

Best practices for project planning to include indigenous traditional knowledge have not been well established. By adhering to the practices suggested here, planners and managers can minimize the risk to both project and people. This list, however, is not a step-by-step outline for project planning or implementation. Regional and local variations are extremely important. Being open-minded, sensitive to other cultures, and able to accept another person's completely different way of solving problems is essential. Remember, most project planners have already decided the project should move ahead, and are concerned with **how** that should be done. Whereas, most indigenous communities who are being asked to participate, will be assessing **why** the project should go ahead, not how.

1. Use the simple definition: indigenous peoples are self-identifiable as a people, wholly or partially self-governed, and live within a larger nation.
2. Recognize that indigenous knowledge is a way of life, an experience-based relationship with family, spirits, animals, plants, and the land, an understanding and wisdom gained through generations of observation and teaching that uses indirect signals from nature or culture to predict future events or impacts.
3. Weave indigenous peoples and their traditional knowledge systems as full partners in the design of a project when indigenous people are directly or indirectly affected by the project.
4. In acquiring indigenous traditional knowledge:
    o Cause no harm.
    o Define the roles and responsibilities of participants carefully and in line with culture and knowledge systems.
    o Define the information to be collected; specify taboo information as outside the project limits. Establish the use, ownership, and the means to interpret or communicate information at the outset.
5. Recognize that including traditional knowledge systems in projects requires respect, trust, equity, and empowerment of indigenous peoples and of the traditional knowledge system.
6. Protect and transfer to indigenous communities or individuals, any value-added concepts that arise from the indigenous traditional knowledge holders as a direct result of the project.
7. Build in opportunities for indigenous peoples to benefit directly from value-added concepts derived from traditional knowledge so the indigenous community benefits from the commercial use of their traditional knowledge.
8. Enable indigenous peoples to define the aspects of their traditional knowledge that are for public consumption and those aspects that are private and confidential.
9. Respect and protect indigenous traditional rights to natural resources.
10. Ask where the development would best take place, do not ask where development should not take place.
11. Recognize that indigenous peoples feel that they belong to the land, so they may not easily accept changing it, or their relationship to it, in any radical way.
12. Engage traditional knowledge systems before initial decisions have been taken to help predict the impacts of a project. Be prepared to abandon the project or vastly modify it if there is a risk of harm to indigenous peoples.

13. Leave broad margins for error in predictive models, and include the socio-economic costs of the often invisible economy of 'women's work' and the special vulnerability that indigenous women face.
14. Understand the local customs and etiquette and train staff who will interact with indigenous peoples before contact.
15. Distinguish between local and indigenous communities, and ensure both have roles; local communities as stakeholders in the dominant culture, and indigenous people as a group with special traditional rights.
16. Make the participatory approach fit the cultural sensitivity of the indigenous community. Successful strategies variously include round tables or talking circles, training the trainers, co-management, and participatory action research.
17. Participation by indigenous peoples as autonomous groups is an essential ingredient to developing both mutual understanding and consensus to set strategic objectives, define a chain of expected results, identify underlying assumptions and risks, and select appropriate performance indicators.
18. Include traditional knowledge early and as an honest complement to scientific or western approaches.
19. Developing self-sustainability is an integral part of traditional knowledge systems. It is beneficial to include their knowledge systems in both the interpretation of the knowledge and in its implementation by relying on credible traditional knowledge holders.
20. Assess the credibility of sources of traditional knowledge by using the community as a source of credentials.
21. Using science and traditional knowledge together in co-management or participatory action research can be a powerful tool to improve the effectiveness of projects, but it requires a relationship based on trust and respect for each other's information and for the different methodologies used.
22. Protocols for acquisition of traditional knowledge should be defined by the indigenous community and agreed to by all parties.
23. Instead of using time scales in project planning, it is sometimes better to use indicators based on the traditions indigenous people.
24. Build in mechanisms that provide increasingly important decision-making capacity for indigenous peoples as the risk increases to their communities.
25. Cause no harm to indigenous peoples because of working within another government's priorities.
26. Understand the host jurisdiction's laws and regulations regarding indigenous peoples including constitutional rights, relevant legislation, policy statements, and recent practices.
27. Engage traditional knowledge practitioners the same way western knowledge engages scientists and other professionals, to make full use of traditional knowledge and its multi-generational wisdom.
28. Avoid a strategy of including indigenous peoples too late or in a trivial manner; it places both the indigenous people and the project at risk.
29. Build in safeguards to protect indigenous communities that are extremely vulnerable to unfair exploitation because of lack of experience with, or non-acceptance of, monetary-based systems of resource sharing.