Chapter 15

Human rights implications of Indigenous Peoples' food systems and policy recommendations

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"Our elders say we need to have our own food to be healthy and to be who we are."

Elder Fred Erasmus, Yellowknives Dene First Nation

Abstract

By ratifying the International Covenant on Economic, Social and Cultural Rights, States take on an obligation to ensure the right to adequate food for all. The practical content of this right has recently been concretized through the United Nations and intergovernmental efforts. In some cases, the policy implications of adopting a human rights-based approach to food security may be more substantial than most States realize. The need for such an approach is particularly visible in the case of Indigenous Peoples depending on traditional food systems. This chapter explores the content of the right to food for Indigenous Peoples who rely to a larger or smaller degree on local food systems for their food security.

A right to food-based analysis was applied to five cases described in this book: Pohnpei, Maasai, Awajún, Inga and Inuit. Information was gathered through supplementary questionnaires and interviews. The main findings were that commercial and development activities on indigenous lands and territories pose a threat to Indigenous Peoples' food systems and livelihoods, and thereby their right to food; and encroachments on Indigenous Peoples' lands threaten their food security and nutritional health, and may lead to conflicts and culture loss.

The conclusion was that in many cases, Indigenous Peoples' right to food is inseparable from their right to land, territories and resources, culture and self-determination. An integral human rights-based approach opens constructive dialogue on what policies, regulations and activities are needed to ensure food security for all, regardless of adaptation. Encouraging meaningful participation by all parties may be the key to building trust and resolving ongoing resource conflicts.

A right to food-based analysis

Harvested food is of key importance to the food security of a wide range of Indigenous Peoples worldwide.[1] However, Indigenous Peoples' livelihoods, which include culturally appropriate food harvesting, processing, preserving, preparation and consumption, are under threat. These threats include the expansion of agricultural frontiers, cattle ranching, exploitive industries (mining, gas and oil), excessive hunting, tourism, and other activities where outsiders make use of savannah, tundra, woodland, tropical rain forest and mountain areas that are inhabited and used by Indigenous Peoples and have often been their homes since time immemorial. These activities often threaten Indigenous Peoples' food and nutrition security and the quality of their water sources, their health and their continuous existence as peoples. It is therefore a goal of this book, and a long-term goal of the Indigenous Peoples' Food Systems for Health Program, initiated by McGill University's Centre for Indigenous Peoples' Nutrition and Environment (CINE), to influence national policies in order to improve Indigenous Peoples' access to their territories and food systems, and to improve dietary adequacy, health and well-being. A human rights-based approach to food is a suitable framework for advocacy and policy to that effect.

[1] The term "Indigenous Peoples" has not yet been clearly defined internationally. This chapter relates to the description given in International Labour Organization Convention No. 169 (ILO 169) while focusing on selected Indigenous Peoples with a strong link to their territories and local food systems. Indigenous Peoples often refer to themselves as nations with the right to self-determination. In this chapter it is recognized that Indigenous Peoples have specific rights and interests within national and international boundaries that may not yet be generally recognized and implemented.

According to international human rights, indigenous individuals should enjoy the same rights as non-indigenous individuals, while at the same time their right to their own culture is respected and protected. They should enjoy basic human rights such as food and health on equal terms with all citizens. Their right to uphold their distinct cultures often implies having a collective right to self-determination in their territories. Although many countries have accepted – at least on paper, through ratifying human rights treaties – that they have obligations to implement these rights, there tend to be gaps in this implementation. The legal framework is often in place, but lobbying and advocacy work is needed to have the parties to international human right treaties recognize and follow-up their obligations in fact.

Human rights-based advocacy should remind the State of its obligations towards all people, including the Indigenous Peoples under its jurisdiction. Human rights may be threatened by the State itself, or by individuals or entities that the State has an obligation to regulate. The respect and protection of the right to food is key to the future of Indigenous Peoples who rely on their local food system for food security. The right to food should be respected, protected, facilitated and fulfilled by the State. In reality however, the mainstream dominating cultures that States represent are often a threat to the traditional cultures, including the food cultures, of Indigenous Peoples.

This chapter uses a right to food-based analysis to explore some of the obligations that States have towards Indigenous Peoples that rely on land for their food security and livelihoods. It includes data and considerations from five of the CINE case studies recently researched (FAO, 2009b): Pohnpei in the Federated States of Micronesia, Maasai of Kenya, Awajún of Peru, Inga of Colombia and Inuit of Canada.[2] The chapter presents the overall governance issues related to food systems and human rights, followed by a description of each of the five case studies. The conclusions give policy recommendations relevant to each of the case studies, and overall considerations.

Governance issues

Public health nutrition, rights and government responsibilities

Public health nutrition is concerned with promoting good health through improved nutrition, and preventing nutrition-related illnesses in the population (Hughes, 2003). One public health nutrition recommendation resulting from the CINE Indigenous Peoples' Food Systems for Health Program is that Indigenous Peoples' traditional food cultures should be encouraged. This recommendation is based on sound nutrition science. Not only are Indigenous Peoples' traditional diets in the large majority of cases nutritionally superior to market-based diets, but the activities related to providing food through hunting, fishing and various harvesting activities protect against lifestyle-related diseases. As such, they contribute first to the health and well-being of individuals, and second to the health and sustainability of societies (O'Dea, 1992; Uauy, Albala and Kain, 2001; Kuhnlein *et al.*, 2004; Kuhnlein and Receveur, 2007).

There are important similarities between a human rights-based approach and a public health nutrition approach to nutritional health. Both approaches understand nutritional health as being related to larger societal circumstances and skewed access to resources. Both aim to influence policies and provide positive change. However, they are also – as understood by the authors of this chapter – different enough to be complementary and synergistic. Nutrition research provides scientifically based information that is relevant to nutrition and important for policy, while a human rights-based approach provides a suitable legal and normative framework and standards for processes and outcomes. Such an approach focuses explicitly on the role and obligations of governments in addressing nutrition problems and problems related to discrimination and inequalities. By doing so, it provides an objective standard by which civil society may evaluate government performance.

[2] CINE has developed case studies that strengthen the evidence base of current circumstances surrounding food systems and health for 12 community groups of Indigenous and Tribal Peoples and cultural minorities located in different global regions: Ainu (Japan), Awajún (Peru), Baffin Inuit (Canada), Bhil (India), Dalit (India), Gwich'in (Canada), Igbo (Nigeria), Inga (Colombia), Karen (Thailand), Maasai (Kenya), Nuxalk (Canada), and the people of Pohnpei (Federated States of Micronesia) (FAO, 2009b).

It is the State that is asked to ratify human right treaties, which makes the State the primary duty-bearer to be held accountable for its conduct. In the context of this chapter, it is therefore the role of the State to balance the rights and interests of all individuals and peoples against each other, through appropriate laws and policies, and to regulate the action of non-State actors. However, far too often agricultural, energy and industrial policies, and even national food security and development plans, are poorly adapted to Indigenous Peoples' needs and culture. For example, a food guide in Canada supports indigenous food use, but the issue of access to this food is seldom addressed. Development-related policies may even encroach on and harm Indigenous Peoples' resources, while benefiting the majority population and economic actors. There is little doubt that economic gains are often prioritized over Indigenous Peoples' land rights.

International human rights are created to protect the most vulnerable against violations by the powerful, including the State itself. It may therefore seem a paradox that the State is also the main duty bearer with regard to human rights implementation. Even though States claim their sovereign right to decide in internal matters, many seek to avoid being branded as violators of human rights, particularly if the accusations receive international attention. The international human rights bodies are in regular dialogue with States over their human rights obligations and conduct. Together with national and international civil society organizations, they educate governments on the content of their human rights obligations and stimulate them to take appropriate actions (FAO, 2009a; OHCHR, 2010). At present, many politicians and civil servants are not aware of the existence of a right to food, nor do they understand their role as duty-bearers within a human right to food-based analysis. This situation is gradually changing, however, as described in the following subsection.

Universal human rights, including the right to food

The "mother document" on human rights, the Universal Declaration of Human Rights, was adopted in 1948. This universal declaration includes civil, political, economic, social and cultural rights, and mentions the right to food and the right to health. Later human rights instruments reconfirm the existence of these rights. The International Covenant on Economic, Social and Cultural Rights (ICESCR) of 1966 recognizes (Article 11.1) "the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions", and (Article 11.2) "the fundamental right of everyone to be free from hunger". Article 11 also establishes the obligation of States and the international community to realize the right to food: "The States Parties will take appropriate steps to ensure the realization of this right, recognizing to this effect the essential importance of international co-operation based on free consent".

The right to an adequate nutritional situation may be extrapolated from the right to adequate food and the right to health, which are both found in ICESCR Articles 11 and 12 (the right to health). Among the countries in this chapter, only the Federated States of

Table 15.1 States' ratification and support record: human right instruments relevant to the right to food and Indigenous Peoples' special rights

Country/ Indigenous People	*ICESCR ratified (thereby right to food)*	*ICCPR ratified*	*ICERD ratified*	*ILO 169 ratified*	*Vote on UNDRIP*
Peru/Awajún	Yes	Yes	Yes	Yes	Yes
Canada/Inuit	Yes	Yes	Yes	No	Yes
Colombia/Inga	Yes	Yes	Yes	Yes	Abstained
Kenya/Maasai	Yes	Yes	Yes	No	Abstained
Micronesia/Pohnpei	No	No	No	No	Yes

Micronesia is not a State Party to ICESCR, and thereby bound[3] by it (Table 15.1).

As stated in the Vienna Declaration from the World Conference on Human Rights, which 171 States adopted by consensus: "all human rights are universal, inalienable, indivisible, interdependent and interrelated" (UN, 1993). This principle implies that rights need to be integrated and understood in the light of each other. This is particularly crucial with regard to Indigenous Peoples, who should enjoy their universal human rights without having to relinquish their special rights linked to their collective enjoyment of their culture, which includes the spiritual aspects of the ways that food is collected and used (UNPFII, 2009).

The right to food has recently received extensive international attention. In 1999, an "authoritative interpretation" of the right to food was developed under the Committee on Economic, Social and Cultural Rights (CESCR, 1999). United Nations (UN) declarations from international conferences have recognized and helped clarify the linkages among food, health and human rights (Gruskin and Tarantola, 2002).[4]

The World Food Summit (FAO, 1996) and the World Food Summit: five years later (WFS:fyl) provided momentum for clarifying the content of the right to food, which was called for by the World Food Summit in 1996. This work was taken on by CESCR in Geneva, and resulted in General Comment No. 12 on the right to food (GC 12), presented to WFS:fyl by the High Commissioner for Human Rights, which then requested the development of a more practical tool for national implementation. Under the auspices of FAO, an intergovernmental working group developed voluntary guidelines to support the progressive realization of the right to adequate food in the context of national food security (FAO, 2005). These "right to food guidelines" were developed by States for their own use, representing a breakthrough in terms of international acknowledgement among States that food is a human right. According to the guidelines, the right to food should inform national laws, policies and decision-making related to food security.

According to GC 12, the right to adequate food is realized when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement (CESCR, 1999). A framework that organizes States' human right obligations into levels – the obligation to *respect*, *protect* and *fulfil* (subdivided into *facilitate* and *provide*) (Eide, 1984; 1989; 2000; ESCCHR, 1999; Oshaug, Eide and Eide, 1994) – is useful and is gradually being applied in human right analysis.

Regarding the right to food, the obligation to *respect* requires States Parties to avoid any measure that results in preventing the access to food that individuals or groups already enjoy. The obligation to *protect* requires States to take measures, in law and in fact, to ensure that enterprises or individuals do not deprive individuals or groups of their access to food. The obligation to *fulfil* in the meaning of to *facilitate* implies that the State must proactively strengthen people's access to and utilization of resources and their means to ensure their own food security. Whenever an individual or group is unable, for reasons beyond his/her/its control, to enjoy the right to adequate food by the means at her/his/its disposal, the State has the obligation to *fulfil* in the meaning of *to provide* that right directly. Food aid should be accompanied by measures that facilitate future self-reliance and food security (CESCR, 1999). At the *fulfil* level, the right to adequate food should not be realized in ways that undermine or hinder the realization of other rights, such as Indigenous Peoples' special rights. The right to adequate food may, for all practical purposes, be considered as a right to food security.

The concept of food security is used at the individual, household, national, regional and global levels. The Plan of Action of the World Food Summit of 1996 states that "food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (FAO, 1996).

[3] Ratification is the process through which a country becomes a State Party to a covenant or convention (and thereby accepts to be bound by it).
[4] These include the 1974 World Food Conference, the 1978 International Conference on Primary Health Care at Alma-Ata in the Union of Soviet Socialist Republics (WHO, 1978) and many large global conferences in the 1990s.

Indigenous Peoples have the same right as others to enjoy the right to health services and to a nutritious diet, but available health and nutrition data indicate that they tend to be worse off than the non-indigenous. The observed disparities are explained by Indigenous Peoples' disadvantaged position in society at large.

By July 2011, ICESCR had been ratified by 160 countries.[5] These countries have (at least on paper) accepted their responsibility for the food security, health and well-being of those under their jurisdiction. Among the countries in this study, Canada, Peru, Colombia and Kenya have ratified the convention and are thereby States Parties to it. The Federated States of Micronesia has so far not done so.

The specific rights of Indigenous Peoples

It is assumed that about 6 percent of the world's population is indigenous (Tomei, 2005; UNPFII, 2007a). This is only a rough estimate however, as there is no official definition of the term "indigenous" (UNPFII, 2007b). The word "peoples" is significant as it points to and relates to the right to self-determination of Indigenous Peoples, each people representing a distinct cultural group. The equal worth and dignity of indigenous individuals are best assured through the recognition and protection of both their rights as individuals and their rights as members of their group (OHCHR, 2006). Culture tends to be shared and constitutes a collective feature, and a people's right to a culture adds an extra dimension to the individual's right to a culture.[6] Indigenous Peoples' collective rights include their collective right to own and use their land, territories and resources, their right to self-determination on their land and territories, and their right to prior consultation and to free, prior and informed consent in matters that may affect them. These collective rights are crucial for the continuation of their cultures.[7]

Both the equal rights of indigenous individuals and Indigenous Peoples' specific rights[8] as a collective are reflected in human rights instruments.

In the Declaration of Atitlán (IITC, 2002) from the Indigenous Peoples' Global Consultation on the Right to Food, the right to food is seen as collective and contextualized within Indigenous Peoples' relationship to land. As expressed in the preamble of the declaration:

> In agreement that the content of the Right to Food of Indigenous Peoples is a collective right based on our special spiritual relationship with Mother Earth, our lands and territories, environment, and natural resources that provide our traditional nutrition; underscoring that the means of subsistence of Indigenous Peoples nourishes our cultures, languages, social life, worldview, and especially our relationship with Mother Earth; emphasising that the denial of the Right to Food for Indigenous Peoples not only denies us our physical survival, but also denies us our social organisation, our cultures, traditions, languages, spirituality, sovereignty, and total identity; it is a denial of our collective indigenous existence…

Indigenous Peoples' right to food is presented here as an integral part of indigenous identity and existence. If Indigenous Peoples are denied the land and the food on the land, their culture will dissolve. This interpretation contrasts with the view often taken by decision-makers within governments. However, it is interesting to note that in this declaration, Indigenous Peoples frame the right to food, formally an individual right, among the collective rights that are fundamental to their identity, culture and existence as peoples.

Several human rights provisions establish Indigenous Peoples' right to uphold control over their territories. These include the International Labour Organization Convention No. 169 (ILO 169) from 1989 and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) from 2007.

[5] http://treaties.un.org/pages/viewdetails.aspx?src=treaty&mtdsg_no=iv-3&chapter=4&lang=en

[6] See article 27 of the International Covenant on Civil and Political Rights (ICCPR) and its General Comment 23.

[7] These rights are found in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), ILO 169 on Indigenous and Tribal Peoples (from 1989), and ICCPR article 27 and its General Comment 23.

[8] The Universal Declaration of Human Rights, ICESCR and ICCPR are for general application. Other instruments detail the special rights of certain groups that are prone to experience circumstances that make them particularly vulnerable. These include women, children, ethnic, religious or linguistic minorities, and Indigenous Peoples.

Article 27 of the International Covenant on Civil and Political Rights (ICCPR) from 1966, on the right to culture of minorities, also implies States' obligation to ensure the right to land of individuals belonging to Indigenous Peoples.[9]

The right to prior consultation on all legislative and administrative actions that could affect the rights, assets, lives and culture of an Indigenous People is stated in ILO 169. The jurisprudence of UN human rights committees has reiterated this principle. In General Recommendation No. 23 on the rights of Indigenous Peoples, the Committee on the Elimination of Racial Discrimination (CERD) calls on States to "ensure that members of Indigenous Peoples have equal rights in respect of effective participation in public life and that no decisions directly relating to their rights and interests are taken without their informed consent". On several occasions, CESCR[10] too has stressed the need to obtain the consent of Indigenous Peoples in relation to the exploitation of resources. In numerous cases governments have interpreted the principle of prior consultation to mean merely that Indigenous Peoples should be informed about measures that will be taken and that will affect them. The intention, however, is to achieve agreement, as expressed in ILO 169 Article 6.2: "The consultations carried out in application of this convention shall be undertaken, in good faith and in a form appropriate to the circumstances, with the objective of achieving agreement or consent to the proposed measures".

UNDRIP takes the matter a step further by establishing the right to *free and prior informed consent*. This principle opens real dialogue and, by replacing the word "consultation" with "consent", strengthens the case for Indigenous Peoples' influence. UNDRIP is the most progressive of the human rights instruments mentioned here. However, its status as a declaration makes it a political statement by States rather than a self-imposed obligation under international law, as are ILO 169, the International Convention on the Elimination of all forms of Racial Discrimination (ICERD) and ICCPR.

As seen in Table 15.1, four of the five countries in this chapter have ratified ICESCR, thereby acknowledging that everyone has a right to food and health. With regard to Indigenous Peoples' rights, including land rights and the right to prior consultation, both Colombia and Peru have ratified ILO 169. Peru and Micronesia were among the 141 countries that voted for UNDRIP in the United Nations General Assembly in 2007; Canada and three other countries voted against it; and Colombia and Kenya abstained (United Nations General Assembly, 2007). Since then, Canada, the United States of America and Colombia, among other countries, have reversed their position and now support the Declaration.

Regarding land rights, it is significant that Kenya, Canada, Peru and Colombia have ratified ICCPR. During their periodic country reporting to the UN, the Human Rights Committee will question these countries on their conduct with regard to land rights and minorities' rights to culture. Canada has also ratified the Optional Protocol to ICCPR, which makes it possible to complain to the Human Rights Committee if the country threatens, or accepts threats to, Indigenous Peoples' territories, and thereby their right to live according to their culture.[11]

All countries are in one way or another under an obligation to respect Indigenous Peoples' right to prior consultation, which is reflected in several human rights instruments. Peru and Colombia have acknowledged this by ratifying ILO 169. Peru, Colombia, Canada and the Federated States of Micronesia have accepted the principle of free prior and informed consent by voting for UNDRIP, and Kenya Canada, Peru and Colombia through ratifying ICERD.

[9] General Comment 23 of Article 27 is interpreted as: "... the rights of individuals under that article ... to enjoy a particular culture – may consist in a way of life which is closely associated with territory and use of its resources. This may particularly be true of members of indigenous communities constituting a minority" (Article 27/GC 23). CESR further observes that "Culture manifests itself in many forms, including a particular way of life associated with the use of land resources, especially in the case of Indigenous Peoples. That right may include such traditional activities as fishing or hunting and the right to live in reserves protected by law. The enjoyment of those rights may require positive legal measures of protection and measures to ensure the effective participation of members of minority communities in decisions which affect them" (Article 27/GC 23).

[10] CERD and CESCR receive reports on States' progress regarding ICESCR and ICERD (Table 15.1), and represent authoritative sources on how the content of these conventions should be interpreted.

[11] This relates to the interpretation of ICCPR Article 27 on minorities and their right to culture, which is explained further in footnote 9.

Indigenous Peoples' right to adequate food

The universality, inalienability, indivisibility, interdependence and interrelatedness of all human rights (UN, 1993) should inform any human rights analysis. This chapter focuses on the right to food, bearing in mind the close links between the right to food and the right to health and, in the context of Indigenous Peoples, to the specific rights of Indigenous Peoples.

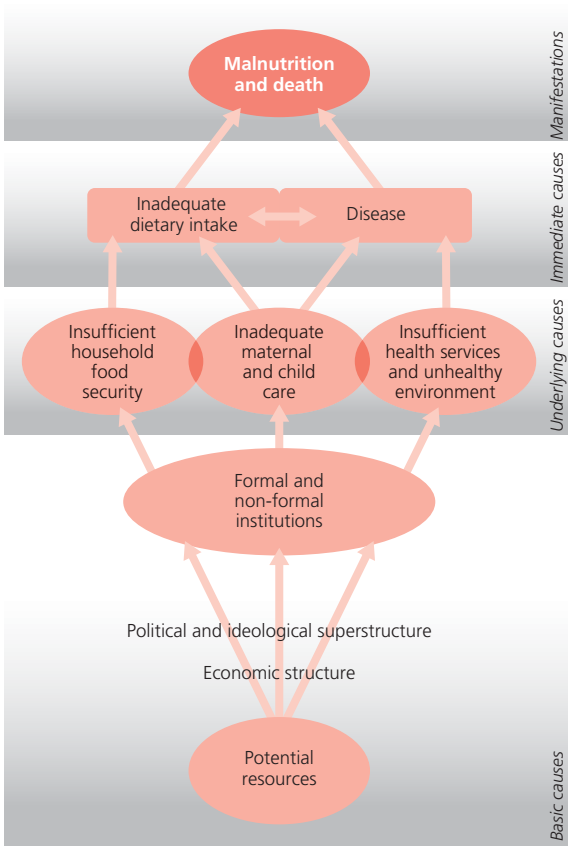
A human rights-based approach demands State accountability and transparency, as well as participation and non-discrimination. It focuses on entitlements in concrete terms and identifies who is responsible for ensuring access to these entitlements. The approach exposes the roots of vulnerability and marginalization, expands the range of responses by duty-bearers, and strengthens the ability of indigenous individuals and communities to improve their conditions (FAO, 2009c).

Indigenous Peoples are generally understood to be vulnerable to poverty, malnutrition and disease (PAHO, 2002b; Damman, 2007). Demographic and health data show disparities in life expectancy, nutrition status and disease between indigenous and non-indigenous populations, in both wealthy (Ring and Brown, 2003) and poorer countries (ECLAC, 2005; UNPFII, 2005; PAHO, 2002a; 2002b; WHO, 2007b; Damman, 2005).

Krieger (2001) notes that the ways in which the causes of health problems are conceived and explained are crucial to the way in which the problems are addressed. A human rights-based analysis throws light on the role and obligations of government duty-bearers. The established obligations also provide a framework for advocacy, so that governments may be held accountable for inequalities and failures to respect, protect and fulfil the various aspects of this right.

As seen in Figure 15.1, malnutrition[12] and nutrition-related diseases can be explained by causal factors on several levels. Analyses by health professionals and epidemiologists tend to focus on the immediate and, to some extent, the underlying causes. Minimal attention is generally given to the basic causes. Human rights-based analyses focusing on the basic causes of nutrition problems in vulnerable groups, and the way in which resources are managed and allocated, are often considered "political" and at times stir up debate and protest.

Figure 15.1 The causes of malnutrition



It seems that Indigenous Peoples are generally able to maintain a nutritionally adequate diet if they are not denied access to their land and if their traditional food resources are not depleted.

For most practical purposes, ensuring *respect* for and *protection* of the right to food is an obligation on behalf of the State to "do no harm" and to "allow no harm", in that non-government actors should be regulated through the legal system. States are required to do this in ways that involve respecting and protecting Indigenous Peoples' unique cultural identities and special concerns. Both the Right to Food Guidelines and GC 12 stress

[12] Here understood as undernutrition (low weight-for-age), chronic malnutrition (low height-for-age, or stunting) and wasting (low weight-for-height, or "thinness").

that governments need to give special consideration to Indigenous Peoples' land and traditional food resources when implementing Indigenous People's right to food (CESCR, 1999; FAO, 2005).

Because there may be conflict between the government and other actors, it is particularly important that the respect and protect levels of obligations are meticulously monitored. It should be ensured that laws do not undermine or violate Indigenous Peoples' rights, their own governments or their livelihoods (respect level). Furthermore, everyone should be equal before the law, and the police and the court system should protect indigenous individuals' rights on equal terms (protect level). In addition, Indigenous Peoples' rights should be facilitated and fulfilled on equal terms, but in ways that are in harmony with their culture. This may mean developing – in collaboration with the group itself – unique and culturally sensitive approaches to achieve the end goal of equal rights for all.

Human rights monitoring should be carried out independently of the State, as the State and its allies often have much to gain from disrespecting Indigenous Peoples' right to land and natural resources. Complaint mechanisms should be in place at the local and national levels, as well as internationally. Human rights should be constantly called for so that States are held accountable. Indigenous Peoples and their allies and defenders should demand their human rights (including the right to food) and exert pressure on States and their officials to meet their obligations and commitments in a culturally sensitive way.

Case studies and analytical framework

Sources of information

This chapter is supported by five of the CINE case studies. These have already been presented by Kuhnlein, Erasmus and Spigelski (FAO, 2009b) and in this volume, with a focus on the food systems themselves and on health improvement using the food systems. The studies were not carried out with the analysis presented in this chapter in mind, so additional information related to the human right to food situation was sought. A questionnaire inquiring about right to food-related issues was sent to the case study focal points on all continents in January 2008. The case study partners responded to this questionnaire, in some cases in consultation with government officials. Responses were returned by e-mail, and follow-up interviews were conducted at gatherings of the partners in 2008.

The questionnaire contained 21 questions with fixed-response categories, and additional space allowing respondents to substantiate their answers. Questions dealt with the local food and nutrition situation and the role taken by the government in respecting, protecting and facilitating the right to food and health. Categories were water and food safety; quality of health services; nutrition status; access to food, water and government assistance; the importance of traditional food and monetary income; signs of climate change; land rights and advocacy; and traditional culture regarding breastfeeding and weaning foods.

The interviews enquired into issues specific to the various case study areas. They were conducted one-on-one and in groups, depending on the participation from the area. Researchers and community partners from nine of the CINE case studies were interviewed: the Maasai of Kenya, the Karen of Thailand, the Awajún of Peru, the Inga of Colombia, the Gwich'in (Tetlit Zheh), Inuit and Nuxalk of Canada, the Dalit of Zaheerabad, India, and the people of Pohnpei in the Federated States of Micronesia. The information was substantiated through available scientific studies and Web-based literature.

The communities

This chapter is based on information from five of the case studies, as it was not possible to present all of the rich information within the limited space available. These five communities are:

- the people of Pohnpei in the community of Mand, Pohnpei, Federated States of Micronesia in the Pacific;
- the Maasai of Enkereyian community in the Kajiado district of Kenya;

- the Awajún of Condorcanqui in the Lower Cenepa region of the Department of the Amazon, Peru;
- the Inga in the State of Caquetá in southern Colombia;
- Inuit of Pangnirtung, Baffin Island, Nunavut, Canada.

The people of Mand, Pohnpei still harvest wild and cultivated food resources from the surrounding area, including food plants, fish and various game. Inuit still hunt caribou and seal. However, new income opportunities and the increased availability of market foods have resulted in lifestyle and diet changes among the people of Pohnpei and Inuit, even though traditional food is still in use. The Inga and the Awajún live in relative isolation in biodiversity-rich rain forest areas. They are offered some government assistance, but their main food sources are still the fish, animals, birds, fruits, tubers, nuts and other plant species harvested in their territories. The Maasai are traditional pastoralists. They now experience serious drought spells, which have made them highly food-insecure and dependent on food assistance. Among the five communities, the Inga and the Awajún have the highest intakes of traditional foods. Inuit also have quite a high intake of fish and game.

The right to food of Indigenous Peoples: five case study examples

Unless otherwise stated, the findings reported for these case studies stem from the e-mailed questionnaires and the follow-up interviews.

Pohnpei

Pohnpei is one of four states in the Federated States of Micronesia (see Figure 12.1, page 192) in the western Pacific. Pohnpei is also the name of the main island in the state of Pohnpei. The population is mainly Micronesian. The Federated States of Micronesia was under United States administration from the Second World War until 1979. It is now a sovereign State in association with the United States of America and uses the United States dollar as its currency. There are relatively few official data on the Federated States of Micronesia.

The nutrition situation

The CINE case study in Mand on the island of Pohnpei showed that about half of a small sample of children were stunted.[13] The overall stunting[14] rate in the Federated States of Micronesia is not known.[15] Growth stunting may be caused by inadequate weaning foods or poor sanitation and health services, or a combination of several factors. The government is seeking to improve the outreach of health and water services. Water provided by the Public Utility Company is safe, but is not accessible to all; river water tends to be contaminated by pig pens close to rivers, and other waste. According to a Pohnpei state-wide health survey, up to half the adult population is obese (WHO, 2008).

Access to land and resources

In traditional Pohnpei culture, traditional leaders decided how collective resources were to be managed, including where and when fishing was to take place. Local leaders still have the authority to make such decisions, but no longer do so. There is an increased demand for privately owned land, and land owned by smaller family units is outside the control of local leaders.

Recent changes in land-use management have affected the availability of harvested food on the island. With an increasingly cash-based society, many farmers have shifted cultivation to the production of *sakau* (kava). This mild narcotic was traditionally used only for ceremonies, but is now sold daily at markets around the island. This shift has caused many farmers to forgo the planting of traditional crops and has resulted in the clearing of much of the interior

[13] The survey, carried out by CINE and the Island Food Community of Pohnpei project, revealed a stunting rate of 46 percent, (< 2 SD, children under five years of age), which is very high. However, the sample size was only 13 children, so results should be interpreted with caution.
[14] Stunting, or low height-for-age, is caused by long-term insufficient nutrient intake and frequent infections. Stunting generally occurs before the age of two years, and its effects are largely irreversible. They include delayed motor development, impaired cognitive function and poor school performance (WHO, 2007a).
[15] The only study referred to in the WHO database, from 2000, shows a lower stunting rate, of 16.7 percent in the states of Kosrae and Yap combined. However, this study covered only 20 percent of the total population of the Federated States of Micronesia, and is therefore not representative (WHO, 2009).

forest. This clearing is causing increases in soil erosion and sedimentation on the reef. The loss of interior forest is also decreasing the island's resilience to such environmental threats as droughts and landslides.

Studies have revealed that development projects such as road construction and increased dredging, coupled with improper waste management have greatly affected the near-shore marine ecosystems. These effects are most clearly seen in decreased health and vigour of coral, destruction of mangrove and sea grass ecosystems, and disruption of the nutrient flow associated with tidal exchange. This destruction of vital marine habitats has greatly reduced Pohnpei's fish and invertebrate numbers. A 2006 study of Pohnpei's fish markets, conducted by Dr Kevin Rhodes, indicated that the island's reefs are being overfished at 149 percent of their healthy capacity.

Food culture and food preferences

Pohnpei is a lush and fertile island where food crops grow readily, and the traditional Pohnpei diet is nutritionally rich. Family gardens are found all over the island, and landowners cultivate bananas, yams, coconut and breadfruit of different varieties, and other species; however, the people of Pohnpei are influenced by United States food culture, and large parts of their caloric needs are provided through imported, processed foods of low nutritional value, such as white rice, white flour products, sugar-rich foods and fatty meat.

These dietary changes are part of a wider set of lifestyle changes and the erosion of traditional culture and heritage. The traditional food resources consumed by adults provide about 25 percent of their total dietary energy (Englberger *et al.*, 2013). Pohnpei inhabitants consider traditional food to be healthy, but it is a public health challenge that traditional food is also seen as being "poor people's food", and most of the population has developed a liking for refined carbohydrates and fatty foods. Unemployment levels are high, but since islanders have enjoyed social security benefits through the Compact of Free Association with the United States of America, their purchasing power for low-cost foods has been ensured, thus contributing to the nutrition transition on the island.

The people of Pohnpei have been hit hard by the nutrition transition. However, measures are now being taken to recuperate and increase pride in the healthier traditional food culture. Government policies encourage local food production and consumption. The elected Pohnpei State Governor has followed a process that included the promotion of local foods. He established a new task force on school snack lunches, which aims to provide meals to primary school students, with a substantial proportion of the meals consisting of local foods. The project based at the Island Food Community of Pohnpei has also been successful in improving attitudes to and increasing the consumption of traditional fruits and vegetables.

Attitudes towards traditional foods are changing, as demonstrated by the increased use of local food during feasts and funerals. The Government of the Federated States of Micronesia has been supportive to the Island Food Community of Pohnpei, through the implementation of policies and media campaigns promoting the harvest and use of local foods. One example is the issuing of a national postage stamp series highlighting the carotenoid-rich *Karat* banana.

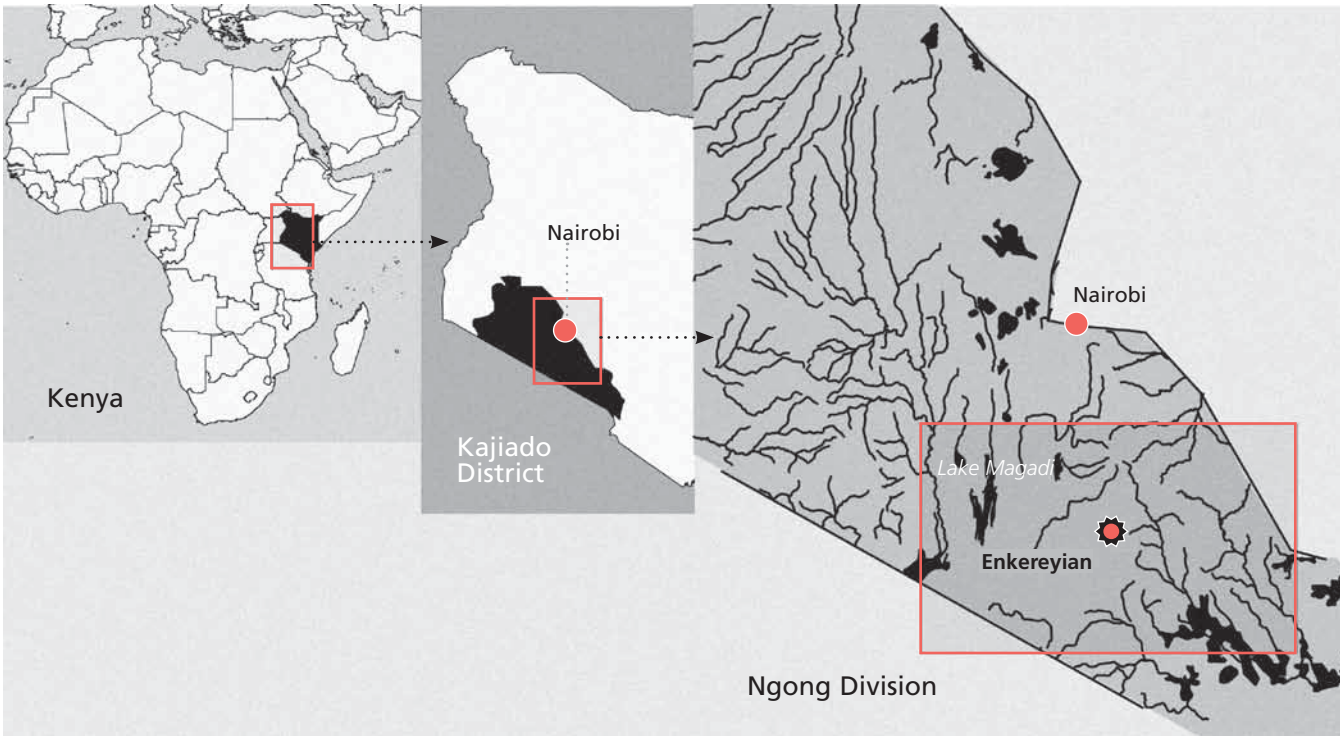
The Maasai

The food and nutrition situation

Pastoralist Indigenous Peoples in Kenya depend on land and natural resources for themselves and their herds. The Maa-speaking Enkereyian community is one of many pastoralist Maasai communities in Kenya (Figure 15.2). The areas these communities use today are neglected by the government, and the lack of infrastructure and State services such as health and schooling results in high rates of malnutrition and illiteracy. State policies fail to safeguard the Maasai's interests and protect their rights (Simel, 2008). Stunting rates (-2 SD weight-for-height) among children aged zero to five years are high, at 53 percent in 2003 (World Vision Kenya, 2004), when the national average was 39.4 percent (WHO, 2007b).

Maasai consume traditional food (especially milk and meat) daily if possible. Outside drought periods, they are able to feed themselves from the traditional

Figure 15.2 **Enkereyian – Maasai Community Ngong Division, Kajiado District**



Data from ESRI Global GIS, 2006. Walter Hitschfield Geographic Information Centre, McGill University Library.

food system, but these foods are currently consumed in smaller quantities during most of the year. Amounts of traditional food consumed vary, but generally provide about 10 percent of total food energy (Oiye *et al.*, 2009). The Maasai experience seasonal water and food shortages, and their diets are deficient in several nutrients. Maize and beans are provided through relief programmes. These are important in counteracting famine as a short-term strategy, but are not popular, and are avoided when the situation permits. During drought periods, Maasai try to obtain donated food to avoid having to sell their animals to buy food, and to save their small amounts of money for other needs.

Food donations are problematic. The fact that Maasai and other pastoralists receive food aid allows the government to postpone addressing the underlying land distribution problem. Food aid also creates dependency, and is becoming a permanent condition. Furthermore, the handing out of food aid undermines the Maasai's cultural and social networks. The Maasai have a sharing ethos, and will take care of the poorest when they are able to. According to the World Food Programme's policy, however, the poorest households are targeted for aid. In accordance with traditional cultural norms, the poorest households then feel obliged to share what they have received with others. In spite of warnings and complaints nothing has been done to address this problem or to find a more culturally sensitive way of providing food assistance.

The Enkereyian community uses the same water source as their animals; this water is a source of diseases, including typhoid fever. Outside the three-month rainy season water is extremely scarce, and women have to trek long distances to get it, which reduces their time for other activities. The government has not been active in improving the water situation, and there are no health services in the community. The nearest health dispensary, 15 to 20 km away, has no

drugs and no trained health personnel. The nearest hospital and health centre is 40 km away, and is far too expensive, as it is privately owned (J. Ole Simel, personal communication, 2008).

Access to land and resources

The Maasai have gradually been marginalized and displaced from their land since United Kingdom settlers arrived in Kenya. Under the Maasai-Anglo Treaties (1904 and 1911), the Maasai were removed from their fertile highland areas to arid areas, which led to abject poverty.

Traditional cultural institutions have been dismantled and the Maasai have gradually become assimilated. Traditionally, the Maasai hold their land communally, but the introduction of individual land tenure has contributed to erosion of the collective way of life and pastoralist adaptation. As access to grazing land and necessary social structures are disappearing, the Maasai are losing their identity.

After independence in 1963, the Kenyan Government increased the pressure on Maasai grazing land, and non-Maasai Kenyan farmers have gradually taken over Maasai territories. Fences prevent cattle from reaching grazing land and water sources, sometimes leading to violent clashes (IWGIA, 2007; Kipuri, 2008). The government has facilitated sales of Maasai land to wildlife conservation organizations and the private sector. At present, the Kenyan Government does not encourage or protect Maasai culture and food systems, and collective rights are not acknowledged. As noted by the Maasai leader responding to the interview "We are supposed to all be Kenyans".

Recent droughts have decreased the land's carrying capacity. Seasonal water shortages affect both people and livestock, and cattle inevitably die. The shrinkage of cattle herds makes the Maasai increasingly dependent on food aid. The future of the Enkereyian Maasai looks bleak if the conditions undermining their livelihoods do not change.

Over recent decades, the Maasai have formed organizations and improved their political awareness, lobbying and networking. They now work both nationally and regionally, pushing for recognition of Indigenous Peoples' rights within the African Commission on Human's and Peoples' Rights, and internationally, to strengthen Indigenous Peoples' rights and draw attention to the situation of the Maasai. In spite of strong lobbying, Kenya was one of the few countries that abstained from voting for UNDRIP in 2007 (Kipuri, 2008).

There is little doubt that global warming influences Kenya, especially the Maasai. The rains fail more often, and droughts, which used to strike once a decade – giving herders and herds time to recover – are now far more frequent. The Maasai's pastoralist adaptation is becoming less resilient, and livestock populations are diminishing throughout Maasai areas. Without their livestock, families lack food and money. Poverty makes it difficult for them to pay school fees for their children, or to cover other subsistence needs.

Drought may be accentuated by ongoing deforestation. The root systems of living trees help the land to hold rainwater, and this water feeds rivers. The Mau Complex, Kenya's large mountainous forest, feeds major lakes and provides continuous river flow and favourable microclimate conditions. These are important for medicinal plants, fuelwood and grazing. Massive deforestation has taken place, affecting large-scale agriculture, charcoal production and logging in natural forests. This is already having a tremendous impact on access to water in areas far from the Mau Complex. Lower water levels result in wells and boreholes becoming dry, and rivers carrying less water and drying up earlier (WRM, 2006).

The Kenyan Government's inaction in this grave situation is a serious breach of Indigenous Peoples' specific rights, which are not acknowledged by Kenya, and also of the rights to food, water, health and human life of the Maasai.

The Maasai have made great political progress, and have some hope in the legal system. Kenya's courts deal with many land cases, and positive developments seem to have occurred. A second legal process also inspires hope, as a Constitutional reform may acknowledge collective land rights (Kipuri, 2008). Both processes are crucial opportunities for Kenyan society to rectify previous wrongs committed against traditional herder societies.

The Awajún

The Awajún case study was carried out in six communities: Mamayaque, Tuutin, Cocoaushi (part of Waiwam), Pagki, Nuevo Tutino, and Nuevo Kanam. These hamlets are situated in Condorcanqui, in the Lower Cenepa region of the Amazon tropical rainforest in the northwestern Peruvian Amazon, near the border with Ecuador (see Figure 5.1, pag. 54).

More than 90 percent of the Awajún's food intake (energy) is covered by harvesting local food (Creed-Kanashiro *et al.*, 2009). The percentage is slightly lower among children, who also receive food through government food aid programmes. There is no electricity in the six communities, and Awajún homes are generally built from local trees and plant materials. Traditional medicinal plants and shamanism play an important role.

The food and nutrition situation

Although the Awajún diet is diverse, child malnutrition is a problem. Almost 50 percent of children under six years of age are stunted, and almost 25 percent under two years suffer from wasting.[16] In the CINE study, energy intake seemed adequate in the season evaluated, but these results may be somewhat overestimated (Creed-Kanashiro *et al.*, 2009). The percentage of dietary energy from animal products is relatively low, as are the intakes of fat, protein, iron and zinc, especially among children. River water is likely to be an important cause of malnutrition, because it is used as drinking-water and likely to contain disease vectors causing diarrhoea and parasite infection.

The Awajún do not consider themselves to be poor, owing to the availability of traditional local food and other resources in their natural environment. However, because they generally have little money, they are classified as poor and extremely poor in the national census, and thus by the Peruvian Government. This entitles them to food aid, which they receive through several assistance programmes. At the time of the interviews, government food programmes provided rice, beans, oil and tuna. Recently, the Awajún started to receive a monthly donation of PEN 100 (equivalent to about USD 30.30) from the JUNTOS programme, which encourages education of children and health promotion for mothers and children. A municipal programme provides children with milk and sweetened oats, but not regularly.

Access to land and resources

Traditionally the Awajún lived in widely dispersed houses and hamlets relatively close to game, fishing opportunities and plant food for harvesting. Later, they moved into villages along the river, for transport, schools and missions. This increased the population density, and led to overexploitation of edible birds, game, fish and wild plants in the vicinity of their villages, gradually reducing their access to these resources. This has resulted in reduced consumption of animal products and decreased food variety.

Peru ratified ILO 169 in 1992 and subscribed to UNDRIP in 2007. A large part of indigenous community lands have been demarcated and titled,[17] but the Peruvian State has failed to acknowledge communities' status as Indigenous Peoples with rights to their larger territories. The Awajún territory covers a far larger area than that of the titled communities, and includes a national park and a communal reserve. The Awajún communities are adjacent to each other, separated by untitled free spaces that the population consider very valuable and the property of all Awajún.

Over recent years, the Awajún have been seriously concerned about a gold mining company establishing itself on their land. They fear that their river, water and fish will be contaminated with mercury, as is happening in other Amazon areas.

The six Awajún communities in the study have also found themselves within an oil concession that the Peruvuian Government has granted for hydrocarbon (oil and gas) exploitation. Such exploitation in the Bajo Cenepa area could have severe effects on the Awajún's rivers, food security and social situation, as the example

[16] Wasting, or low weight-for-height, is a strong predictor of mortality among children under five. It is usually the result of acute significant food shortage and/or disease (WHO, 2007a).

[17] Mamayaque received land title in 1977, Nuevo Tutino in 1998, Tuutin in 1975, Cocoaushi in 1975, and Pagki in 1987. No information was found for Nuevo Kanam, but a map available on the Web shows that the area is registered: www.ibcperu.org/index.php

of the Corrientes River illustrates. Oxydental petroleum and Pluspetrol have been extracting oil and gas in the Corrientes River area for 35 years. Wastewater has contaminated the Corrientes River basin (Agurto, 2008), and the Peruvian Ministry of Health has found very high levels of lead and cadmium in the blood of Achuar people. The surviving birds, game and fish may be contaminated, as may plants used for food. The Achuar are less able to provide themselves with food, and report deaths and illnesses that may be associated with heavy metal poisoning; so far, they have not received any compensation or medical treatment. This has added to the concern of the Awajún and other Indigenous Peoples of Peru, as they fear that extraction activities in their areas could lead to the expropriation of valuable and sacred communal lands, and have severe consequences for communities' health, food security, culture and livelihoods (Achuar inhabitants of the area, personal communications, April 2009).

The case study communities share this destiny with many other indigenous communities in Peru. Peru's current (2010) President, Alan Garcia, is very favourably disposed towards the extractive industries, and the Free Trade Agreement between Peru and the United States of America has substantially increased the number of agreements between international extractive companies and the Government of Peru. During his presidential period, Mr Garcia has increased the proportion of the Peruvian Amazon available for oil and gas prospecting from 20 percent of the total land area to 70 to 80 percent (*Asociación Interétnica de Desarrollo de la Selva Peruana* Web site,[18] 2009; Agurto, 2008). Recently, the government has sought to implement regulations that put at risk both the ongoing land titling processes and the autonomy of Indigenous Peoples to use their land freely. This is counter to the Peruvian Constitution and is being disputed (APRODEH, 1999).

So far, the Awajún's rights to health, food and education have been poorly addressed by the government. Currently, however, the most pressing problem for Awajún is mining and petroleum extraction. Extractive industries present a real and constant threat to the natural resources that are the basis for the population's subsistence, and thereby its right to food and health. It is worrying that the development policy and legal changes taking place under the current government conflict with Peru's human rights obligations, as has been noted by ILO and the Inter-American Commission on Human Rights (CERD, 2009), among others. By allowing extractive industries on to Awajún land without consultation, the State violates Indigenous Peoples' rights as expressed in ILO 169, UNDRIP and ICERD, among other agreements. This testifies to a failure of the government to take its human rights obligations seriously.

The Inga

The CINE project in Colombia focuses on indigenous territories belonging to the Inga Association (*Asociación de Cabildos Tandachiridu Inganokuna*) (Correal *et al.*, 2009). The project focuses on five Inga territories in Caquetá: Yurayaco, Brisas, San Miguel, Niñeras and Cosumbe (see Figure 8.1, pag. 122). Caquetá is situated in southern Colombia, near the border with Peru and Ecuador, along the northwestern frontier of the Amazon region. Similar to the Awajún, the Inga make use of traditional medicinal plants and shamanism (CINE, 2010).

Interview data established that the communities cultivate food, but land areas have declined and are now too small to produce sufficient food for the people. The further away the communities are from urban areas, the more traditional foods they consume.

Legal framework

Colombia's Constitution and laws have long been considered the most progressive in Latin America. ILO 169 is fully adopted and supported by legislation. Laws specify that communities have autonomous rights to decide over their territories, and that they have to participate in the formulation of policies that may affect them. However, ongoing negotiations linked to the Free Trade Agreement with the United States of America have led to a weakening of certain laws, and new laws have been made. These changes seem to undermine the

[18] www.aidesep.org.pe/

rights that Indigenous Peoples in Colombia secured in the 1990s. The Rural Development Statute (Law 1152 of 2007) (Houghton, 2008), which sought to make land available for investments, was declared unconstitutional in March 2009, while the National Development Plan (effective since 2007) seeks to expand the agricultural frontier and invite extractive industries into vast new areas of Colombia (World Bank, 2007).

The fight against illicit drugs

Colombian law appears to provide communities with unprecedented opportunity to control their own territories and food systems. In practice, however, interviewees for this chapter reported that there are several ways in which their control of territories can be overruled. First, military activity violates the land titles and tribal sovereignty previously enjoyed by the Inga. Both the guerrilla organization, Revolutionary Armed Forces of Colombia, and government military forces hinder Inga subsistence production and harvesting. Second, Plan Colombia, the United States-Colombian collaboration to fight illicit drugs, violates the sovereignty of the Inga's territories and food systems in important ways (HREV, 2008). The herbicide Roundup is being sprayed from aeroplanes on areas where plantations of coca (used to make cocaine) and poppy (used to make opium and heroin) are grown, some of which are close to Inga territories. The government has made no effort to protect the Inga against the impact of these herbicides, which cause diarrhoea, fever and other undocumented health effects (Gallardo, 2001). According to interviewees, fields that are sprayed become infertile. A recent scientific study showed that Roundup in residual dosages may cause cell damage, cancer and even death (Otaño, Correa and Palomares, 2010). One of the chemical ingredients was found to cause redness, swelling and blisters, short-term nausea and diarrhoea. Although Roundup is considered harmless for humans, tests have shown that it harms human cells in cell culture, and may cause damage in the concentrations found on herbicide-treated vegetables[19] (Gasnier *et al.*, 2009). The effects that regular spraying will have on people and animals living in the vicinity of spraying and on drinking-water from rivers that flow through sprayed areas are unknown. There are no records of health authorities investigating the effects of these chemicals on the health of local inhabitants.

[19] Dilutions of 1:100 000.

Hydrocarbons

The Inga's land, food security and livelihoods are also threatened by hydrocarbon companies. Although Indigenous Peoples in Colombia have territorial rights, the government continues to own the subsoil resources, including minerals, gas and oil. Up to 70 percent of Colombia, including nearly all indigenous territories, will be granted as concessions to hydrocarbon companies, implying a 50-percent increase in concessions (Houghton, 2008). This extractive policy will most likely violate Indigenous Peoples' rights to land, territories and resources, and is likely to undermine their right to food and water. However, as one interviewee remarked, the armed conflict has so far kept foreign investment/development at bay. If the conflict stops and the area becomes safer, oil drilling may become the major threat to the Inga's food security.

Food security, land and natural resources

The Inga's food security is threatened because food and drinking-water taken from the rivers may not be safe, owing to the Colombian policy of eradicating illicit crops by aerial Roundup spraying. Illicit drug and military activities in the area threaten food and water safety and hamper Indigenous Peoples' access to game animals, fish and other harvested foods. Most likely these activities also reduce the availability of game. In the future, oil and mining companies may start drilling within or near the Inga territories, further threatening their food security and access to safe food and water.

The autonomous indigenous councils try to counteract this by expanding their ancestral territories. For example, in 1999, the Inga – in collaboration with the Amazon Conservation Team (*Instituto de Etnobiológica*) and the National Parks Service – requested the creation of the Alto Fragua Indi Wasi National Natural Park in the

southern department of Caquetá (Chapter 8 – Caicedo and Chaparro, 2012), an area rich in biodiversity and adjacent to the Inga's territory. This would protect the area from the migrant farmers who are being displaced from other regions, the pollutants that accompany illegal coca and poppy cultivation, and the herbicides used to eradicate illegal crops.

Although the Inga are in a difficult situation, their autonomous position and the size of their territories offer some protection to their livelihoods. However, there are reasons for claiming that the government has failed to address the armed conflict in the area and to take the necessary action to protect the Inga against the pollutants that are most likely threatening their food and water safety.

Inuit

Pangnirtung is a small Inuit community on Baffin Island, located in the vicinity of Iqaluit, the capital of Nunavut Territory in Canada (see Figure 9.1, pag. 142). Compared with that of most Indigenous Peoples, the living standard is relatively good, but lower than in the rest of Canada. Inuit children have significantly lower education outcomes than average Canadians, housing conditions remain well below national standards, and health indicators continue to lag behind those for the rest of Canada (Simon, 2009).

The quality of health services is also lower in Nunavut, partly because of high turnover of health personnel (Nunavut Tunngavik Incorporated, 2008). A recent report demonstrates that the low standard of housing, and overcrowding are linked to the rate of hospital admissions for infants with respiratory infections, which is the highest in the world (Kovesi *et al.*, 2007). Local water is good, and is regularly tested by government services. Water is provided by truck to homes, and elders continue to use melted ice chunks for their drinking-water and tea.

Traditional food

Inuit in northern Canada, including in Pangnirtung, have experienced reduced availability of harvested meat since giving up their nomadic way of life and being forced to settle in communities in the 1950s. The increased cost of hunting and the increased dependency on snowmobiles and petrol to travel the distance needed to find game have made it difficult for some households to harvest the traditional foods (or "country foods") they need.

Some consider themselves to be deficient in resources, including food and the ability to ensure their own food security. However, the sharing ethos survives, and many Inuit receive country food from relatives and others. Inuit practise and believe in sharing, and people say that when you give, you will get more in return.

Through Health Canada's First Nations and Inuit Health Branch and the Ministry of Indian and Northern Affairs Canada, the Canadian Government encourages the use of traditional food in the North, including in Nunavut and Pangnirtung. While adults and older generations tend to appreciate traditional foods, youth are turning towards market foods (Chapter 9 – Egeland *et al.*, 2013). This may indicate that the food culture is changing. However, it is speculated that the current generation of youth may appreciate country food more when they become older and form their own families (Egeland *et al.*, 2009).

Access to market food

Inuit depend on money to satisfy all their food needs, but incomes are often too low to provide the family with the food it requires. Many people in Pangnirtung receive income support and health care. However, food insecurity is a problem, due to both the costs associated with hunting and fishing and the high prices of airborne perishable market foods in the Arctic. As also occurs in some other northern communities, perishable foods of good nutritional quality have been subsidized through a Government Food Mail Program, but the subsidies are not sufficient to lower food prices to the level enjoyed in southern Canada. Less money is generally available to households, and food prices are higher among Inuit than among Canadians in the south, leading to food insecurity for some. It has been reported that some Inuit skip meals because they lack food or the money to buy it (Johnson-Down and Egeland, 2010).

The nutrition transition

Increased intake of market foods is also associated with overweight, obesity and diabetes (Egeland *et al.*, 2009). Inuit are experiencing a nutrition transition in which a market-based diet is gaining importance, especially among the young (Johnson-Down and Egeland, 2010). Rates of overweight and diabetes are increasing for Inuit internationally (Jørgensen *et al.*, 2003), which – given the obvious lack of food security – makes the paradox of the nutrition transition especially relevant for Inuit children.

Traditional foods are of key importance to Inuit food security, and 70 percent of households consume traditional food. Country food provides 41 percent of dietary energy for adults, but only about 23 percent for youth. Most of the carbohydrates in the diet come from market foods. Unfortunately, carbonated drinks lead to increasing intakes of sugar, while market food is increasing the content of saturated fat in the total diet (Kuhnlein *et al.*, 2004; Egeland *et al.*, 2009). Youth (people under 25 years of age) are a large consumer group, as they represent more than half (56 percent) of the total Inuit population (Statistics Canada, 2006).

Contaminants and climate change

Environmental contaminants in the country food harvested by Inuit have raised concern among inhabitants, the government and researchers. The government monitors levels of contaminants and funds research on adverse substances that may affect human health (Kuhnlein and Chan, 2000). The creation of CINE was largely a consequence of the realization that these matters called for close collaboration with indigenous communities in the Arctic.

It has now been proved beyond reasonable doubt that global warming is affecting the climate in the Arctic, and the ice is melting rapidly. In Pangnirtung, melting of the glacier in the surrounding mountainous terrain has resulted in serious and unprecedented flooding in the community (L. Okalik, personal communication, 2009). Climate change affects the living conditions of the local animal species that Inuit depend on for their food security (Chapter 9 – Egeland *et al.*, 2013). Despite these unsettling developments, however, the Federal Government does not yet have an overall plan for environmental monitoring (ITK, 2007).

There is certainly local concern about climate change, but this is a global issue and is not restricted to Pangnirtung. Inuit are actively advocating for government and international action against climate change.

Land rights and policy

The Nunavut Land Claim Agreement (1993) gave Inuit of Pangnirtung and the whole Inuit population of Nunavut Territory a form of domestic self-determination. Eighty-five percent of the population of Nunavut is Inuit. Through the Nunavut government and a participatory governance structure, Inuit of Nunavut (including in Pangnirtung) are now able to make important decisions about their common future, but within the wider legal and policy framework provided by the Canadian Federal Government. Closing the gaps in housing standards, education and health services will require substantial public sector investment.

Canada represents Inuit in international climate negotiations, but has so far not played a particularly constructive role in ongoing efforts to reduce carbon emissions from fossil fuels, and thereby end global warming. So far Canada and other Western countries have gained reputations for undermining negotiations to protect the rights of Indigenous Peoples and forest-dependent communities in the face of climate change.

Conclusions and policy recommendations

These five Indigenous Peoples represent diverse traditional adaptations and food systems. Over recent decades, their territories and food systems have, in different ways and with different results, been influenced by State government decisions and economic actors. National governments have all assumed human rights obligations relevant to Indigenous Peoples' right to food. Some governments perform reasonably well in this regard, although they could perform even better. Others fail seriously, and violate the human rights and specific rights of Indigenous Peoples, which are crucial

for their food security. Food systems can be undermined in several ways, including through national laws and policies and by unregulated extractive industries. In some cases, government policies and development processes contribute indirectly to nutrition-related disease by not making timely and effective efforts to stimulate the use of nutritionally superior foods, including traditional indigenous foods and diets.

The Federated States of Micronesia has an unimpressive record in ratifying human rights conventions, although it is encouraging that the country voted in favour of UNDRIP in 2007. However, it is puzzling that it should have voted for this, the most progressive human rights instrument on Indigenous Peoples' rights ever made, while failing to ratify ICESCR, ICCPR, ICERD and ILO 169. The human rights situation does not seem to be particularly problematic, and the people of Pohnpei have a government that is not imposed on them and other islanders, unlike most Indigenous Peoples elsewhere. With regard to ethnic descent, the government represents the people of Pohnpei to a large degree.

The transition from collective to individual landownership reduces traditional leaders' authority regarding natural resources. While traditional land management strategies have dwindled, the State seems largely to have failed to fill the void and assume the necessary regulatory responsibility. The degradation of land and the overuse of fish resources currently taking place are clearly unsustainable and challenge future national food security. The strong United States influence on the consumption patterns of Micronesians, and their increased purchasing power due to social security transfers from the United States of America have undoubtedly contributed to the obesity-prone food culture in Pohnpei.

From food security and right to food perspectives, it is promising that recently, when faced with the persistent and increasing obesity problem, the government took action to motivate the population's use of more locally grown and nutritious foods. This initiative should be strengthened, and the sustainability of land-use policies and fishery regulations improved. However, the Federated States of Micronesia should also consider improving its record for ratifying human rights agreements.

The Inuit in Pangnirtung have an Inuit government at the community level. The government of Nunavut Territory is responsible for an area where most residents are Inuk seeking to meet Inuit interests and needs, but the Canadian Federal Government is the highest authority, and makes decisions regarding the funding of Nunavut social programmes and food subsidy programmes. The Inuit's well-being therefore often depends on Canadian laws and policies, including funding policy. Pangnirtung Inuit are also dependent on the Nunavut Land Claim Agreement. Canada was one of only four countries that voted against the new UNDRIP, although the Canadian Government later reversed this stance and voted for UNDRIP, as did the governments of the United States of America, Australia, New Zealand and Colombia, among others.

It is a concern that Canada does not take a more progressive role in international climate negotiations. Nationally, there is a need for a more decisive stand. Laws and regulations should be enacted to reduce the emissions of climate gases effectively; policies should support these regulations, and should include creating good incentives for the population at large and for industries, making it easy to choose climate-friendly alternatives. Internationally, Canada needs to play a more proactive role in climate negotiations and in negotiations regarding the protection of tropical forests and the rights of traditional peoples who depend on these for their livelihoods.

It is of great concern that Canada, the United States of America, Australia and New Zealand seek to block reference to the protection of Indigenous Peoples' rights in negotiated climate texts, in spite of the obvious and immediate threats that climate change poses to the traditional livelihoods and food security of Inuit and traditional peoples worldwide.

The Maasai are in a dire situation. As a first step, the Kenyan Government needs to acknowledge – in the Constitution and in law – the collective rights of pastoralists and their indigenous specific rights to uphold their herding livelihood (respect level). The Maasai are in critical need of water and grazing land,

and it should be the role of the State to ensure their land rights and to protect them from encroachments on to their land and other violations of their rights. Immediate government action is needed to address the precarious and immediate water, health, food and schooling situation of the Maasai, and to facilitate access to water and grazing land for the animals that they depend on for their livelihoods. Failing to do so is a violation of their rights, including, in some cases, their right to life. The Mau Complex is in urgent need of a sound restoration policy; the protection and restoration of its water-retaining capacity needs to be continued, to benefit the Maasai and the large numbers of other people who depend on the rivers downstream. The Kenyan Government should ensure that the most immediate needs are met. It is also critical that the government enter into dialogue with the Maasai, inviting their opinions and giving serious consideration to their inputs and suggested solutions.

The Awajún and the Inga are in fairly similar situations. Peru and Colombia were formerly progressive countries with regard to indigenous rights, but, (apparently) partly as a consequence of signing free trade agreements with the United States of America, they have started to undermine the progress made, and even their own Constitutions, to provide more possibilities for economic growth through the extraction of natural resources. Both governments are in conflict with their obligations under ILO 169, and both countries also have serious conflicts between their Constitutions and the policies and legal changes being implemented. Given the Peruvian and Colombian governments' unwillingness to respect and protect indigenous rights, there is need for strong international and external pressure. The Inga are now in a "no-win" situation. When or if the violence and military activities in their areas stop, the oil and mining companies are likely to enter.

In all five cases, the causes of food and nutrition-related problems can be found in the interactions between the indigenous community and the larger society, represented by and controlled by national governments. Governments have obligations that most are far from fulfilling, including those regarding the right to food. Inuit and the people of Pohnpei have become increasingly dependent on market food and have entered the nutrition transition. Many Inuit seem to be experiencing food insecurity, due to high food prices, low income and, probably, declining access to country food. The Maasai experience serious full-fledged food insecurity and even starvation, owing to lack of fertile land and water for their cattle herds, and failing income. The Awajún and the Inga have access to land areas with relatively bountiful natural food resources, but their land, water and food resources are threatened by unrest, exploitive industries, pollution and the side-effects of illicit drug cultivation, which also undermine their food security and thereby their right to adequate food.

Climate change is likely to have large repercussions, at least in the short to medium term, for all peoples who depend on nature for their subsistence. Indigenous Peoples are therefore rightfully concerned and are taking an increasingly visible stand internationally. The areas where the Maasai graze their animals have been hit hard by drought, probably partly caused by deforestation but accelerated by the general pattern of climate change. Inuit are experiencing rapid ice melting and their access to wildlife is threatened. In the Federated States of Micronesia, rising sea levels affect agricultural lands. This calls for national adaptation and mitigation strategies in addition to measures to reduce emissions of carbon and other climate gases. There is need for policies and legislation to protect Indigenous Peoples and others whose livelihoods and food systems are likely to suffer as a result of climate change.

This chapter has aimed to stimulate analysis of the wider circumstances surrounding the food and nutrition situation of Indigenous Peoples in various countries and circumstances. As noted by Stavenhagen (2007), there is an implementation gap between the actual situations that Indigenous Peoples live under, and the content of national laws, constitutions and States' international obligations. A human rights-based approach to food will increase awareness of governments' role with regard to food security. It is also a tool for ensuring attention to the need to find policy solutions that ensure social equity. Governments have an obligation to ensure, through laws and policies, that socio-economically and

politically marginalized groups do not suffer from a poorer nutrition situation than other population groups.

These problems may be overcome if measures to ensure Indigenous Peoples' food security are planned and carried out with Indigenous Peoples' free, prior and informed consent and in accordance with their rights, including their right to food. In particular, the 2007 UNDRIP provides a good framework for interaction between governments and Indigenous Peoples, especially with regard to food security and nutrition.

UNDRIP is gradually gaining political attention and momentum; the 2007 vote and later updates show that most countries are now willing to accept, at least in theory, not only the existence of Indigenous Peoples' rights, but the need for progressive stands on land rights and self-determination. Reflecting this in national law and policy would be a large step towards equity-based and culturally sensitive food security and health policies. However, for this to happen, governments must first understand the full implications of current laws and policies on Indigenous Peoples' livelihoods and futures, and demonstrate a clearer understanding of their own obligations under human rights law. Not only must the State decide to play an active role, it must also take a stand for equity and cultural diversity, and against the aggressive exploitation and destruction of natural resources and the common global ecosystem heritage that is seen today. The support for UNDRIP suggests that the time is ripe for change. The escalation of food prices triggered by the global financial downturn, and the threat of climate change may increase awareness in both governments and national populations. This may translate into new policy directions, but these are more likely to occur on a large international scale if civil society, the media and other global citizens insist that change at many levels is essential to uphold the human rights of Indigenous Peoples

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