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**FOOD SECURITY, NUTRITION,  
AND HEALTH IN:**

**COSTA RICA**



COSTA RICA



## Executive Summary

Indigenous groups all over the world have been economically, politically, and socially isolated. They have worse health and nutrition and more food insecurity than majority groups. Costa Rica has been held up as a model country for good development and among Latin American countries, Costa Rica has the highest per capita income and literacy rates. In addition, they have lower death rates for infants and mothers and less malnutrition for children under five years old.

However, the indigenous people of Costa Rica, eight groups that represent 1.7% of the population, have not shared in the benefits of development. They have higher rates of death, malnutrition and disease than the general population.

Indigenous reservations make up much of the 3% of the country that lacks potable water and only about 40% have access to sewage disposal. In addition, the reservations and villages are isolated, spread-out and lack infrastructure. Sometimes their poor land is polluted by nearby banana plantations.

So far, the work that has been done to improve the agriculture and health of the indigenous people has not respectfully considered traditional food, farming, and medicine systems. This weakens indigenous culture and does not provide the markets and health clinics they need. All policy options must include indigenous people in active, decision-making roles.

### Policy options for improved food security and nutrition include:

- Encouraging the use of native and wild food crops
- Increasing research on the nutritional content of native crops
- Improving the productivity of indigenous crops
- Promoting the sale of indigenous crops
- Breeding crops that suit the soil and climate conditions
- Increasing market opportunities
- Aiming interventions at women, the primary farmers and food providers
- Restoring land productivity
- Moving the reservations to better land
- Encouraging a shift from farming to other ways to provide a living
- Encouraging “agritourism”

### Policy options for improved water supply include:

- Making all water potable in indigenous areas
- Educating indigenous about sanitation

### Policy options for improving overall health include:

- Building more clinics in remote areas
- Sending out mobile clinics
- Encouraging the use of traditional medicine
- Promoting medical education among youth
- Using community radio to spread health messages
- Improving international and national statements on the rights of health of indigenous people

### YOUR ASSIGNMENT:

To recommend to the government of Costa Rica a set of policy measures to improve the food security, nutrition, and health of the indigenous populations in Costa Rica.

### THINKING ABOUT GLOBAL ISSUES:

- What factors, or absence of factors, might account for the problems in isolated indigenous communities?
- What are the factors that make food cheap and plentiful in the United States?
- What factors of urban living help to provide the access to cheap and plentiful food?





## Background

The story of the isolation and poor health of indigenous peoples has happened many times in history. Even well-intentioned development programs often fail to help indigenous peoples. Unlike the rural poor, indigenous groups often have different language and cultural norms from those of the mainstream society. They often lack political power because of discrimination and language barriers. Their ecosystem knowledge (understanding about native foods and medicines) is an important part of their spiritual and cultural traditions. But when faced with modern culture, the traditional ways are sometimes set aside.

### Costa Rica in context

Costa Rica is the richest country in Central America. Only 2% of Costa Ricans are living below the international poverty line (here, considered less than US\$1 a day). Among all Latin American countries, Costa Rica has the highest literacy rates. They also have the lowest infant and mother mortality rates. In Costa Rica, 97% have access to drinkable water and 92% have access to sewage systems. Life expectancy is 81 years for females and 76 years for males (PAHO 2005a-b). The Costa Rican government provides health services free of charge to all. It has been held up as a model country for good development.

### Indigenous in Costa Rica

According to the 2000 Costa Rica census, indigenous peoples make up 1.7% of the population and number about 64,000 (INEC 2000). Twenty-four reserves, mostly in mountainous regions, were designated by the government and said to be rich in forests, rivers, and animals and good for agriculture, hunting, fishing (Chacón 2002). Now, 73% of indigenous people live on these reserves representing eight different groups: Huetar, Chorotega, Teribe, Brunka, Guaymi, Bribri, Cabecar, and Makeku (U.S. Department of State 2005).

Land use in and around these indigenous reservations affects health and nutrition. In 1886 an agricultural colony was established in the region of Talamanca. This colony was settled by non-indigenous settlers. Along with these settlers came the banana plantations: United Fruit (now Chiquita®), Dole® and others. Many indigenous men began working for these companies, leaving women at home to grow and collect food.

The switch to a cashed-based economy changed their diets from native crops to other foods.

Indigenous reservations constitute much of the 3% of the country that lacks potable water. The water near the banana plantations has been polluted with pesticides and other agrochemicals. The water is not polluted in the mountainous regions, but there is no infrastructure for a public water system. Also, only 40% of the indigenous have latrines (PAHO 2002b). Therefore, malnutrition and disease are the largest health problems.

Indigenous issues have received little attention from the government. In Costa Rica, indigenous were only given the right to vote in 1994, and they have no representation in the Legislative Assembly (U.S. Department of State 2005). In 1973, a National Commission of Indigenous Affairs (Comisión Nacional de Asuntos Indígenas, or CONAI) was created in Costa Rica, but this organization lacks power and funding to enforce laws protecting indigenous people (Schulting 2007). Many indigenous reservations are in mountains where government health care and agricultural services do not reach.

The main problem of Costa Rica's indigenous is that they are caught between traditional and modern and unable to benefit from either. Because of their small numbers and contact with mainstream culture, many indigenous people reject the traditional ways. This involves a loss of culture, identity, and self-esteem because of feeling different and "backward." Indigenous people face prejudice; they often have the lowest-paying, lowest-status jobs when they move into the mainstream. They do not have a formal education or fluently speak the dominant language. They face discrimination in health services, employment, income, housing, education, and daily life.

### THINKING ABOUT GLOBAL ISSUES:

- Why do you think there is little information about indigenous people around the world? How could this data be collected?
- What other applications can you think of for the word "indigenous?"



## Policy Complications

### Inappropriate agricultural interventions

Agricultural interventions usually focus on traditional Latin American crops: coffee, banana, sugar, rice, beans, and corn. These crops do not always yield well in the regions where indigenous live. The climate and soil types in the reservations are different from the lowlands where the main cash crops are grown. These varieties usually require large amounts of fertilizers and pesticides as well as machinery that are too expensive for indigenous farmers. In addition, there are few markets for selling because of the remote locations. Therefore, competition with large agribusinesses producing the same cash crops is not possible. In addition, the income they earn from producing only one crop is not enough to purchase a variety of nutritious foods.

The Ministry of Agriculture agency in Buenos Aires has projects to improve food security for the indigenous including vegetable gardens for home use, irrigation systems for dry seasons and goat and cow production. Milk will not meet needs at home since the indigenous tend to be lactose intolerant but it could be sold if markets were available.

Although the use of wild and native plants by Costa Rica's indigenous has not received much attention, they are known to have high nutritional value. Pejibaye is a bright orange, beta-carotene-rich fruit that has gained popularity throughout Costa Rica. Local farmers know what foods are available and acceptable and their contributions should be considered. The focus on nonnative crops encourage indigenous people to consider native crops as "poor food." In Wayanad, India, the use of wild foods is a "symbol of poverty" which leads to a lack of interest in learning about and eating them among young people (Garcia 2006). Food is not only calories and nutrients; it is also culture.

**Implication:** Agricultural interventions have not reduced food insecurity because they have not taken local resources, knowledge, and participation into account. Interventions need to be planned with the indigenous community in order to succeed.

### Consideration of women in agriculture projects

Women are often the primary farmers and may be more responsible for native crop and medicine use. Agricultural extension agents are mostly men who might assume that the women are not leaders in agricultural production (WOCAN 2006). This failure to recognize women as decision-makers is particularly true for indigenous communities.

**Implication:** Agricultural projects should include high levels of participation by women.

### Poor integration of medical services

Like traditional food systems, the traditional medicine used by indigenous people is different from that of the mainstream culture. The use of medicinal plants is often written off as quack medicine. [It is estimated that 25% of modern Western medicine originates from plants (Tyler 1996)]. Because health care is difficult to access, medicinal plants are important in health and healing. Like wild and native crops, medicinal plants have important cultural and medical functions.

In 1998 CONAI and the Costa Rican Social Security System agreed to work to improve health services for the indigenous. In a pilot project, a local practitioner of traditional medicine was hired to practice in the government clinic alongside public health workers. The intention was to increase acceptance by offering both kinds of medicine to indigenous patients, but the project did more harm than good. Putting the two kinds of medicine side by side created competition as to who got more visits and who cured patients faster. In the end, the traditional medicine did not get very much business and was pushed out of the clinic.

**Implication:** Traditional medicine must be recognized as helpful, particularly in the absence of government clinics. Health care development should involve indigenous peoples in deciding what is needed.



## Policy Complications

### **Policymakers' lack of knowledge about indigenous culture**

Policymakers usually lack knowledge about indigenous culture, values, and native crops and medicine. For example, the Pan American Health Organization published a hygiene booklet for an indigenous group in their language, but the pictures were of white children brushing their teeth in tile bathrooms—a situation completely removed from those who live under thatched or tin roofs and without plumbing.

**Implication:** Interventions need to consider indigenous resources and culture if they are to be effective. Indigenous peoples should be involved in planning and decision-making.

### **Difficult access to diverse indigenous groups**

Working with indigenous communities to plan appropriate projects is difficult. Some reservations are hard to reach because they are located in mountainous regions. Roads are impassable after heavy rains. Eight different languages are spoken and many indigenous do not speak fluent Spanish. Different cultures require different approaches.

**Implication:** Different interventions are needed for different areas. Active participation of local indigenous people is necessary.

### **The water challenge**

Undrinkable water is the largest challenge to health and nutrition. Many indigenous people live in mountainous, remote areas without a system for purified water. Other communities are located near banana plantations where the water is polluted with pesticides.

**Implication:** There are major challenges to water improvement that must involve leaders from government, industry and indigenous people.

### **THINKING ABOUT GLOBAL ISSUES**

- How is the system of land ownership of the indigenous people in Costa Rica different from that of the US?
- How do people in your neighborhood buy homes, cars, health care and food?
- What examples of cultural “poor food” exist in the United States or other countries?
- What does your family do when someone gets sick? What “home remedies” do you use?





## Stakeholders

### Indigenous peoples

The indigenous are the primary stakeholders in efforts that would improve their food security, nutrition, and health. Policies can cause them to lose independence, identity, or traditional patterns of growing food or eating. Through policy change, they stand to gain increased food, income, health services, clean water, a better sense of identity, and access to markets and jobs. Women and children may be most affected by new kinds of agricultural policies and interventions.

### Policymakers

Costa Rican legislators and officials in the Ministries of Health and Agriculture will decide on policies that affect indigenous health and welfare. By implementing policies to improve food security, health, and nutrition for the indigenous, they could gain loyal voters, a healthier workforce, and goodwill from having made improvements. However, the infrastructure and staffing necessary to provide even basic interventions are expensive. To implement solutions, they would need to train extension agents in new ways.

### CONAI

Costa Rica's National Commission of Indigenous Affairs (CONAI) will be involved in discussions about whether or how to improve indigenous food security, health, and nutrition. The government could strengthen the agency's power with additional funds or staff in order to address issues.

### Non-governmental organizations (NGOs) that initiate interventions

There are several NGOs within Costa Rica and internationally that have a stake in projects to improve the health of indigenous peoples. Some NGOs have a mission to improve conditions for indigenous peoples. These groups may lose power and influence to carry out their projects if the Costa Rican government decides to implement efforts using its own resources.

### Multinational agriculture businesses

The companies that own the plantations have a stake in indigenous health policy. New policies that require them to make conditions better for workers and clean up water supplies will affect their profits. However, they would gain a healthier workforce through improvements in the food security and health of the indigenous.

### Mainstream society

The Costa Rican population as a whole is a stakeholder in policies to improve indigenous health. It is unlikely that those in the mainstream society will want to divert tax money and funds to indigenous groups that are only 1–2% of the population. However, improvements in indigenous food security and nutrition will reduce communicable diseases, benefitting everyone. Improvements may also reduce the number of young, uneducated indigenous who come to the cities in search of employment and could thus lower unemployment and crime. Finally, encouraging the use and sale of native plants will promote biodiversity, boost national pride, and serve as a selling point for the Costa Rican economy.



## THINKING ABOUT GLOBAL ISSUES

- What are the primary ways that improved health and food security will benefit each of the stakeholder groups?
- What are the primary reasons why most Costa Rican stakeholders would be against government intervention on their behalf?
- What example of issues with stakeholders exist in your country?



## Policy Options

Given the issues, several possible policy options to improve indigenous food security, nutrition, and health are listed for debate.

### Agricultural interventions

#### **Encourage the use of wild native and wild food crops**

Consuming native and wild crops can provide nutrients, strengthen culture and provide income. This option involves either hiring indigenous extension agents or training current agents about native and wild plants. The Ministry of Health has worked with an indigenous community to document native foods in a picture booklet for use by the community. Better communication about the value of native foods can promote consumption.

#### **Increase nutritional content research of native crops**

Select the most nutritious species to research and promote, realizing that overall diversity improves nutrition. Studies have been done in Asia and India that assess indigenous vegetables for vitamin A, iron and antioxidants: Promoting Utilization of Indigenous Vegetables for Improved Nutrition of Resource-Poor Household in Asia (AVRDC 2004).

#### **Improve productivity of indigenous crops**

In 1993 an NGO called Foundation for the Application and Teaching of the Sciences (FUNDAEC) did a participatory community development project with Bribri farmers to improve agriculture (Whatley 2006). The process empowered the farmers to choose methods that could improve productivity.

#### **Promote the sale of indigenous crops**

Beyond their clear contributions to nutrition and medicine, these crops can contribute to income. Some wild crops, such as ginseng, have become blockbuster sellers on the world market. In the Andes of Bolivia and Ecuador, indigenous people rely on a grain crop called chocho that is highly nutritious, containing essential fatty acids and protein. The National Institute of Agriculture in Ecuador is currently working on a project to increase production and sales of chocho to a mainstream market.

#### **Move the reservations to better land**

Moving the reservations would be a drastic solution. However, this option could improve the resources available for food production. Also, they would have better access to health care and clean water.

#### **Increase market opportunities**

The reservations are isolated and thus make poor and uncompetitive markets. Forming cooperatives among indigenous farmers could maximize profits by minimizing the cost of reaching larger markets. Organic techniques or linking with an international fair trade company to sell products at home and abroad could give them a niche market. In 1995 a group of Bribri women succeeded in forming a certified organic cacao cooperative, COMUITA (Comisión de Mujeres Indígenas de Talamanca), which increased income for the dozens of women farmers involved.

#### **Aim interventions at women**

Women are often a household's primary farmer and food provider and are also in touch with the nutritional needs of their children. Aiming interventions at women may be a more efficient way to improve food security than working only with men.

#### **Restore land productivity**

Fertilizers, organic techniques, contour farming, and mulching and tilling techniques could improve land and increase yields.

#### **Encourage a shift from farming to other ways to provide a living**

The health and livelihoods of indigenous people might improve if they are integrated into the mainstream economy by taking factory jobs or working for large agribusinesses. This strategy would involve outreach, training and migration to cities leading to an end to the reservations.

#### **Encourage agritourism**

Building on Costa Rica's main income source, native crop production could be of interest to tourists visiting an indigenous farm. The Kekoldi reserve, near the Panama border, is a tourist attraction: for US\$50, tourists visit waterfall-graced sections of the Kekoldi and Bribri Indian Reserves, tour a medicinal plants garden, and see a local market (Gray Line Costa Rica 2006). Investments in infrastructure would be needed to make some reservations accessible to tourists.

#### **Breed crops that suit the soil and climate conditions**

Varieties of rice, corn, and beans commonly used in Costa Rica do not always yield well in mountainous regions. Agricultural researchers, who are familiar with crops, have access to germplasm for breeding programs. The reservations in Costa Rica are not all mountainous and vary in their ecologies, so different varieties could be adapted to each zone.



## Policy Options

### Interventions for clean water

#### ***Make all water potable in indigenous areas***

Build infrastructure to provide purified water to mountainous regions and create and enforce laws on water quality in banana plantation areas.

#### ***Educate the indigenous about sanitation***

Deliver health messages using culturally appropriate materials that fit indigenous life and resources.

### Interventions for better health

#### ***Build more clinics in remote areas***

More clinics require building materials, staff, and supplies as well as roads. Very few indigenous are educated as medical professionals, so non-indigenous medical staff will have to commute periodically to the remote clinics.

#### ***Send out mobile clinics***

Mobile clinics, carrying supplies and medicines, would still have a need for passable roads and trained staff.

#### ***Encourage use of traditional medicine***

Existing clinics do not fulfill the health needs of the indigenous. Traditional medicine has the potential to reach the entire community. Past experience has shown that integrating traditional medicine into an existing modern clinic is not the best way to promote traditional medicine; a better approach might be to train young indigenous healers.

#### ***Promote medical education among youth***

Educate indigenous people who will become health care providers for their communities. Use community radio to spread health messages. Creating indigenous radio stations to communicate interventions and health behaviors that work. Announcers can speak to the community in their own language and context.

### ***Improve international and national statements on the rights and health of indigenous people***

The United Nations Declaration on the Rights of Indigenous Peoples was adopted by the Human Rights Council on June 29, 2006; indigenous leaders are currently advocating adoption by the General Assembly (UNPFII 2006). Efforts are underway to document the extent of indigenous food use and the value of indigenous foods in both home use and the market, as well as to initiate public awareness campaigns, which have already started in Kenya (Frison et al. 2006). Such statements and initiatives help to shape political will.



## THINKING ABOUT GLOBAL ISSUES

- Consider the policy options listed for debate. List the pros/cons (costs/benefits) for each solution. Who will pay for each cost?
- How can the stakeholders be persuaded to support these options?
- What kinds of compromises can be made?
- Which policies do you think would be the most helpful? Why?

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