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Lao People's Democratic Republic, Factor 10

Water and Food Safety in the Lao People's Democratic Republic

The Lao People's Democratic Republic (Laos) is a landlocked country located in Asia. It is a communist state headed by Prime Minister Thongsing Thammavong. Laos gained its independence in 1949 after France's rule since 1886. Laos consists of 6.5 million people with varying religions such as Buddhism, Islam, and Christianity. The land, like its people, is diverse. The country of Laos consists of 89,112 square miles of land, about the size of Utah or Idaho, and 2,317 square miles of water. Most of the terrain is mountainous and hilly filled with thick green forests and rivers, while a small percentage is flat, farmable land. Most of the Laotian people live along the Mekong River, in river valleys, and on the plains and plateaus. From May to November is the monsoon season in Laos, while the remaining months of the year, April to December, make up the dry season. The percentage of permanent crops in Laos is just over three-tenths of a percent. Even though the country has such a low percentage of permanent crops, seventy-five percent of those employed work in agricultural-based jobs and raise a mixed group of products including sweet potatoes, vegetables, corn, coffee, sugarcane, tobacco, cotton, tea, peanuts, rice; water buffalo, pigs, cattle, and poultry.

From this introduction one may believe that the Lao People's Democratic Republic is a fairly fortunate country, but underlying that seemingly pleasant exterior lies the ugly face of poverty, hunger, unemployment, disease, poor water quality and sanitation, environmental disasters, religious persecution, and lack of education, among many other threats. Even through all of those problems, water remains extremely important. Without water, a person can only live 3-5 days, and even if a person had water, but it was contaminated, their risk of disease and even death increases exponentially. Though Laos has water in abundance, most of their water is not potable, especially in rural areas. Through proper education and techniques, Laotians can improve their water quality and reduce water transmitted diseases including bacterial and protozoal diarrhea, hepatitis A, and typhoid fever.

In Laos, a typical family consists of four to six children in a nuclear family. The infant and child mortality rate in Laos is high with fifty out of every one thousand dying. Unlike many societies, the family can have the mother as head, and she may have a large amount of power in the family's decisions. In Laos, there are surprisingly more female entrepreneurs than male entrepreneurs. In rural Laos most women, however, are subject to male dominance. Laotians do have some freedom in choosing their marriage partner, but the parents have the right to propose a spouse and also be asked about potential partners.

The average lifestyle of a Laotian is much different from an average American, including their living conditions, their sanitation conditions, income, occupation, and their way of life. Most rural Laotians live around a temple, which is the center for most social activities, usually focusing on religion, in houses built on stilts, but some Laotians in the south live in long houses. Many of the rural homes have poor sanitation including no bathrooms. Most of those that live in rural Laos work in agriculture focus mainly on rice production. Textiles are also produced in rural areas, but mainly are for personal use. In rural Laos, there is generally no division of labor among men and women except for women's roles in weaving, sowing, and some household tasks. Men and women in rural areas farm together, but separate some of the tasks: plowing for men, raising animals and gardening for women. The animals raised by Laotians usually live under the house. A typical income for a Laotian individual is estimated around 986-2,300 USD.

Like many Asian countries, the main food in Laos is sticky rice eaten with chopsticks or fingers. Soup is also a very common dish in a Laotian meal. In some rural areas people eat chopped, raw meat along with other foods found in the forest. Meats eaten include poultry, buffalo, beef and fish, especially in lowland Laos. Health care in Laos is rudimentary. Some Laotians have the basic understanding of disease, but others still believe in evil spirits that cause disease and the loss of the spirit can cause an imbalance. Many Laotians cannot afford proper healthcare and/or cannot afford to take a sick individual to medical professionals due to the need to keep working in order to support their families. Also the different languages in Laos (Lao, French, English, and other ethnic languages) can complicate medical visits without proper translation. Education in Laos consists of five primary school grades and also secondary schools located in the cities. While this may sound fine, only about half of the primary school students make it past the fifth year, and many cannot go on to secondary school due to expenses and the poor quality education they received previously. Educational access for girls is significantly below that for boys, thus giving females a disadvantage in future advances. In rural schools, there may only be one or two grades and a poor supply of necessities, thus limiting the amount of education a rural person could easily receive.

One of the main reasons for agricultural limitation is nature itself. The mountains make most planting and harvesting in those areas difficult. During the monsoon season roads flood, making it impossible for over half of the villages to bring crops in or out of the area thus limiting income and productivity. Tropical storms have led to the flooding and destruction of villages leading to loss of crop, land, livestock, and shelter. After one tropical storm a villager stated, "It (his livestock) was my family's main source of food and income, he says. But we lost all of them, they all drowned. We have nothing left." On the other end of the weather spectrum, drought can adversely affect agriculture in Laos by causing loss of crops, leading to low profits which in turn results in the inability to buy the seed needed for next year's crop.

The government has also provided barriers to agricultural growth. In a Communist government, the government has more power than the people and can determine what a person does and does not do. This can lead to more government control over land owned, what a person does with the land, and how much they can buy or sell. While not as oppressive as other Communist countries, the Lao government still can have a heavy hand on the economy and occasionally takes control of land and equipment.

Lack of electricity in rural areas has led to slow technological development which in return has also slowed the advancement of agriculture. Some of the people in rural Laos do not even know how to handle electricity, and thus do not know how to use it to advance their harvesting and growing capabilities.

The diseases that animals carry in Laos have limited Laotian opportunities for formal livestock and meat trade. Though the diseases are treatable, the services of veterinarians are very limited in Laos and expensive for the rural population. These diseases can also result in the death of the livestock. In a desperate situation, a Laotian may have to resort to eating this diseased animal, and perhaps contract some of the transmittable diseases that that animal may have, ending in the downward spiral towards destitution and even death.

Water is very important to Laotians as it is to the rest of the world. By using the rivers, especially the Mekong river and its tributaries, Laotians have been able to create electricity by using hydro-power dams, providing transportation routes for people as well as supplies, for advancing trade, creating jobs, and using it for a very important food source--fish. Laotians use these rivers for what Americans would call "daily necessities" including bathing and washing clothes. The most important thing they obtain from the rivers is drinking water; but by obtaining drinking water from the rivers, people are risking their health and the well being of their family and, possibly, their farms.

The present risk of food and waterborne diseases is very high in Laos. Diseases that could be acquired in Laos include bacterial and protozoal diarrhea, hepatitis A, and typhoid fever. Poor sanitation and poor food preparation can bring about hepatitis A, typhoid fever, E. coli, and the waterborne disease hepatitis E. According to health statistics reported by the World Bank, food-borne and water-borne diseases are the major cause of sickness and death in the general population. The rural population is most effected. Over eighty percent of the rural population does not have access to proper sanitation methods and over one half of the rural population does not have access to safe drinking water. In contrast, only one-third of the urban population does not have access to proper drinking water and proper sanitation. Seven out of every one hundred infants die every year due to diarrhea and E. coli from poor sanitation and poor water quality.

Without proper drinking water, sanitation, and/or well-prepared food, a person may become sick from previously mentioned diseases and be unable to work. Without this income, as meager as it may be, it could mean the difference between putting food on the table or going hungry. Also, in the rural setting, if a family came down with a water-borne disease that prevented them from working on the family farm, they may end up losing some of their crops or their livestock without constant care. Unlike the eight to five jobs that some people in the cities hold, a rural farmer may never have a break from his or her work and a week of inability to work may prove fatal. The family or individual may have to resort to a poorer quality or cheaper food in order to stay alive which could then result in malnutrition. In order to reach a clean source of water, the person may have to travel a good distance. This may lead to the loss of time allowed for working and ability to go to school; especially for the girls of Laotian families. Usually the girls in the family regularly obtain water as one of their duties.

These effects of unsafe water and food, as you have read, can lead to serious problems, but efforts have been made to improve the quality of water in Laos, and in return, water quality has improved. For example, in 2005 Laos received \$10,000,000 from the Asian Development Bank to aid in safe water and the people's health projects. The CDC (Centers for Disease Control and Prevention) initiated the WASH (Global Water, Sanitation, and Hygiene) Program in Laos and also in other countries. WASH has worked to have safer drinking water, to improve hygiene and sanitation, to identify and eliminate/control diseases, as well as to train and educate others on health programs and plans. Plans have been previously made (by another organization) to closely monitor the process of ensuring safe drinking water for the consumer, but for those who do not receive water by obtaining through a supplier still receive the same, possibly disease-infected, water.

Increases in population could lead to a higher pollution rate and adversely affect the quality of the water, food, and sanitization by releasing pollution into the air and water. The water drunk by a person could cause disease, or the animals that drink the water could develop a disease and thus reduce trade between countries and even cause disease when consumed. In a natural disaster such as a flood, tsunami, or hurricane, Laotians trying to escape the damaging effects of the storm may flee to safer places possibly causing overpopulation in some areas leading to possible shortage of food and possible contamination of food and water due to a strain sanitation abilities and resources. Changes in climate, such as global warming, could lead to stronger storms and cause heavier rainfall. Weather changes such as these could lead to flooding which may in turn contaminate food and water supplies. The climate of Laos in general is a breeding ground for bacteria. With its warm temperatures and humidity, the bacteria is virtually incubated and the life span is also increased.

The Laotian government's part would include sending more teachers to rural areas and improving the distance children are from secondary schools. Those who receive higher education may then make advancements in water and food safety, as well as sanitization or the students would learn the basics on the subject and microorganisms to help better themselves and those around them. By having the

government focus on the more afflicted rural population and their food and water safety and sanitization it would decrease the poverty level. To enhance food safety the government should enforce new laws based on producer surveillance to “watch” how a producer makes/grows his/her product), create certification for products in rural and urban areas, promote business associations and hold meetings on food management, more thoroughly regulate imported products, and use a higher percentage of the country’s revenue on health facilities.

The Laotian communities must learn to help themselves by following food and water regulations, by practicing safe food and water preparation, by trying to advance education about disease and business practices, and by providing assistance for better, more economical medical practices. If a community followed these guidelines the risk of food- and waterborne diseases would decrease significantly. Rural and urban families can directly help by following guidelines, by petitioning the government for needed assistance, by helping build latrines away from living areas, and by cooperating come to help implement the plans needed to improve the quality of food, water, and sanitation.

Organizations could improve the quality of Laotian life by doing one of the easiest and most effective things—donating towards improved food and water quality plans. The United Nations, for example, have a few plans set towards bettering Laos through poverty reduction, increased political abilities, and helping the business owners. With these plans money is needed and the nations have bound some of their funds to help impoverished nations including Laos. Missionaries sent to Laos have also helped in food production and quality by helping set up better technology to help with food production and waste management.

As I researched Laos I saw travel sites boasting about the beautiful sights in Laos; while this is true, the sights of poverty are much more common and, in a humanitarian’s perspective, much more important than a grand sight. It seems as though in the United States we are shielded from poverty—even the poverty in our own backyards, and especially the poverty in other countries. In order to be successful in a goal, it is necessary to have the proper information. It is necessary to learn of other’s sufferings, so we can learn to better the lives of ourselves—this stays constant for the Laotians. Success begins with schooling. Learning proper ways to handle food and water as well as proper sanitation techniques can not only save lives directly, but can indirectly influence a person’s future plans of schooling, farming, and family life.

Improving or hopefully resolving the problems of water and food safety could greatly increase the amount of income received in a typical family. With safe food and water, the possibility of receiving a food or waterborne disease decreases significantly allowing for more time a farmer could spend tending to his/her crops or livestock. Without the need for extra help at the home due to loss of an ill worker a child may be able to attend school more readily. Attending school can open the “door” to many opportunities and in the future may lead to a higher income and a better way of life. Better and closer water resources may especially help girls, who as previously mentioned, are the main “water-fetchers” in a rural Laotian family. Less distance to travel to obtain water may bring greater possibilities for a Laotian girl to attend school. Along with learning different techniques for food, water, and sanitation safety, Laotians and their government should focus on improving laboratories that test food and water samples as well as produce pesticides and vaccines to help prevent diseases in people and animals. Water plants as well as food services need to be closely monitored for proper practices and more data must be collected to also monitor the progress of these businesses and individuals. Education focused on food and water safety should also be provided more readily. The Laotian population should be educated in all general subjects including mathematics, language arts, science, and agriculture. With knowledge in these subjects, a Lao may have the ability to advance in his/her profession; as if a future farmer had more education he/she may be more likely to do better business, manage the farm, understand the pesticides and herbicides the crops need, and even be able to calculate yield. A person from a traditional rural farming family may be able to

move out of the family business and work in the city with a higher paying job and may even be able to support his/her family from the city. Just by improving the quality of water, sanitation, and food, lives can be changed, and lives could even be saved.

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