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Bridging the Gap

IN INTERNATIONAL DEVELOPMENT

Bringing awareness of the impoverished to developed nations and the resources for development to the impoverished

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A Fragile Existence

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Burkina Faso - Cultural Notes

To Our Readers:

Many have confessed honestly to us that they have never heard of Burkina Faso before. Realizing that it is not a country on everyone's mind these days, we decided to make a section in *Bridging the Gap* devoted solely to informing the general public about the culture and people of Burkina Faso. We hope this section will be interesting and fun to read for all!

Why Children Don't Get Eggs

In Burkina Faso, many villagers raise chickens. Now a typical African chicken fends for itself by scratching around the courtyard and fields during the day. It is the children's job to round them up at night and put them in their shelters. It is also their job to find eggs and give them to their mothers.

As legend goes, there once was a young boy who was a very faithful gatherer of eggs. Every day, he searched for eggs and after finding at least a dozen would deposit them in his mother's hand. She was very pleased with him, always patting him on the head and saying what a fine egg collector he was. Then she would cook up one of the eggs and give it to him. The rest she would sell at the market or cook for his father.

But the little boy was greedy. He was not satisfied with just one egg. He wanted more. So, one day after collecting the eggs, he went to a nearby patch of woods and secretly roasted two eggs over a camp fire and ate them. He continued doing this every day, and his mother never noticed that the egg count was slightly less. She still cooked him one egg.

But one time, his father saw a small wisp of smoke coming from the woods and fearing a bush fire ran to investigate. Catching the boy red-handed in eating the eggs, he marched him over to his mother where the boy confessed his clandestine eating.

So ever since that day, it is the custom of Burkinabé parents to not give their children any eggs to eat for

fear that they may become greedy thieves.

Source: *Habibou Campaore, French language teacher, Ouagadougou, Burkina Faso (orally translated by David and Cheryl Verbree)*

A Woman's Work is Never Done

Although it is a relatively recent phenomenon for women in the Western world to pursue a work career while raising children, it is not a new thing in many African countries such as Burkina Faso. For a long time, Burkinabé women have juggled the tasks of work and taking care of the family.

Here is a typical schedule that working Burkinabé women keep in the village during planting season:

Time	Tasks
6:00am	Get up and work in her fields
8:00am	Prepare breakfast, fetch water 1-2 miles away. Work in husband's fields. Take baby with you (if <2 yrs old) or leave toddlers with other siblings
12 noon	Prepare brief lunch. Go to work in her husband's fields
3:00pm	Return to work in her fields
5:00pm	Prepare evening meal, which takes 1.5 hrs
6:30pm	Eat meal. Have daughters do the dishes while she washes up the kids and puts them to bed.
9:00pm	Go to bed

If a woman neglects her work, her family will not be well-cared for. Burkinabé women may also be involved in other farming tasks such as raising chickens, goats, or vegetables. With many of their tasks, they enlist the help of their young children.

The Horsewoman of the Mossi

Many of the ethnic groups in Africa have a long oral tradition dating back over five centuries. The Mossi people of Burkina Faso have such an oral tradition that includes an explanation of where and who they came from.

The story goes like this – in the thirteenth century, a powerful king ruled over an area in present day

Ghana. He had a daughter named Yennenga. This daughter was no ordinary woman; she was a renowned horsewoman and warrior who helped her father in his kingdom battles.

But Yennenga had a problem. Her father refused to allow anyone to marry her. So one night, disguised as a man, she fled on a wild horse to the north. She soon grew exhausted and found herself alone in the forest. There, she met a famous elephant hunter named Riale who took her in.

They fell in love and married. Yennenga eventually had a son, and they named him "Ouedraogo" which means stallion or horseman. The son returned briefly to his grandfather, the king, before establishing a new kingdom in the southern Burkinabé city of Tenkodogo. Later kings, known as "Mogho Nabas" would move the royal capital to Ouagadougou and Yatenga.



Illustration 1: Yennenga, the Mossi Horsewoman

Many Burkinabé artisans honor Yennenga, considered to be the mother of the Mossi, by producing beautiful statues and paintings of this brave horsewoman. There is also a road named after her in Ouagadougou and a giant statue of her in the city.

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The Rough Guide to Africa, Jim Hudgens and Richard Trillo, Rough Guides, New York, 2003

Africana Women, Her Story Through Time, Dr. Cynthia Jacobs Carter, excerpt from: <http://www.simonsays.com/content/book.cfm>

Saint Eupery website, http://www2.ac-toulouse.fr/lyc-saintex-ouaga/html/arc_yennenga.htm

The Fragile Existence of Burkina Faso Farmers and Herders

The Fragility of Life:

Do you feel your existence is fragile? Fragile in the sense that at any moment, suffering, hardship, or death could strike you or your children?

Many people in the modern, Western world live a life characterized by stability, not fragility. Their basic physical needs such as food, shelter, and health are met on a regular basis. One can reasonably expect to avoid severe hardship, although it does happen occasionally. But, people often worry about things beyond their physical needs such as education, entertainment, and the care of their material goods. It is all too easy to take for granted the very basic things of life.

In some areas of the world including sub-Saharan Africa and Burkina Faso, basic things do not come so easily. Many people struggle to feed, clothe, and shelter their families much less find education and entertainment for them. Why is this the case? What makes life so unstable and fragile for these people? What don't they have that others do?

The following article addresses these questions by looking at the fragile existence of Burkina Faso farmers and herders.

Brief Background:

Burkina Faso is a land-locked country in West Africa where 90% of its population meet their basic needs through subsistence farming or herding. Farmers try to grow enough food each year to meet their family's food needs and to trade for clothing, shelter material, and medicines. Herders keep cattle to sell for meat or milk and use the cash to provide for all of their basic needs.

The little economic development that has occurred recently in the country has not affected most of the population. Few income-generating jobs are there. Unlike the United States and Europe, Burkina Faso has not experienced a Green Revolution followed by 200 years of economic

and industrial development leading to a well established consumer economy and high levels of technology.

Challenges for Farmers:

Burkina Faso farmers sow crops, weed, and harvest by hand much like people did in developed countries two thousand years ago. They typically use only simple implements such as the short-handled hoe, hand cutters, or the mortar and pestle to accomplish their work.



Illustration 2: Village women pounding millet by hand in Yalgo, Burkina Faso (VI)

These simpler methods of farming take more time and labor, but still get the job done.

Farming, no matter how or where it is practiced, remains a challenging occupation. It is inherently filled with perils beyond the farmer's immediate control. For the Burkina Faso farmer, it is particularly challenging in these respects:

- The weather – Rainfall in Burkina Faso can be sporadic during the short 3-month growing season. It may come late or not at all causing crops to fail. Sometimes, it can come too strongly and wash away seeds and soil.
- Pests, such as locusts or birds, diseases, and weeds can reduce crop yields significantly. Farmers do not have the money to invest in chemical pesticides. They sometimes suffer large crop losses.
- Difficult or no access to

markets – there are few goods-to-market roads in Burkina Faso, so many farmers have difficulty selling their surplus.

- Fluctuating cash crop prices – the resale price of certain cash crops such as peanuts or rice is often dependent upon the world market and economics. Therefore, a farmer may fail to get a satisfactory return on his investments in growing these crops.
- Lack of labor at crucial planting and harvesting times. Because it is all done by hand, farmers must be strong and able to work. Sometimes, there are not enough healthy workers available due to illness or because they have left the village to find work in the city or neighboring countries.
- Lack of good farmland – land suitable for farming is limited in Burkina Faso. Many farmers have to cultivate crops on poor, infertile land.

Herders and Drought:

Being a herder is not much easier, although some people would argue that following goats and cattle around is not much work! Most people in northern Burkina Faso are herders. They may be nomadic, where the entire family moves with the animals as they graze over large areas of land, or transhumant, where only the young men move with the animals, and the others live in settled villages. A few herders are sedentary, where everyone, including the animals, stays in one place.

Herding can be a fragile existence. Nomadic herders often risk losing their land rights. When they return to a place after being gone several years, they often find the land inhabited by sedentary farmers. They also face the same challenges as farmers do with diseases, lack of access to markets, and fluctuating prices.

Herders are very dependent upon the

weather. The worst thing for a herder is drought. Unfortunately, droughts can come often to northern Burkina Faso, on average once every four years.

When the rains fail, vegetation and crops die and waterholes and wells dry up. Cattle begin to die of starvation and thirst. Herders try to sell their remaining cattle, but by this time the market is flooded and the animals so poorly nourished that their value is extremely low. Many herders go bankrupt or find themselves in deep debt. With no cash or assets left, they have difficulty rebuilding their herds after the drought ends.

The Fragility of Introducing New Technology:

As farmers and herders face these challenges, it is common for those in the Western world to say that technology is what they need. "If only they had the technology like we do, they could overcome these challenges and make their lives more stable."

For example, the plow is a technology that saves time and effort while generally increasing crop yields. It has been used all around the world for many years and truly is the most basic of machined agricultural instruments.



Illustration 3: Donkey plows in the market in Ouahigouya, Burkina Faso (VI)

The donkey plow pictured above was introduced to Burkina Faso during colonial times. Although initially seen

as a symbol of colonialist rule, many farmers adopted its practice, finding that the benefits were substantial. Using a plow, a farmer could cultivate more land and significantly reduce the time and labor required for planting. This freed him up for other income-generating activities.

But there were several problems in using the plow. First, farmers had to clear their fields of all shrubs and trees so that the animals could drag the plow in straight lines. Pulling out all vegetation left their fields very barren during the dry season. Farmers found that their unprotected soil was more easily lost to the wind and rain.

Second, there was the difficulty of land availability. With the plow, farmers wanted to use more land. But Burkina Faso as a whole has a limited amount of good farmland. So the farmers extended their cultivation to marginal land or overused their good land. As many farmers could not afford to buy chemical fertilizers, they used cattle manure to fertilize their fields.

Farmers increased the number of their cattle to increase the amount of manure. But the increased number of herds led to an even further loss of vegetation and ground cover as the cattle ate the grass and shrubs surrounding the farmers' fields and the stubble left over in the fields. Unprotected soil continued to be lost, and farmers found their crop yields decreasing year after year.

The introduction of the plow was done without much foresight to the problems it could create. A plow increases the amount of land one can plant, initially increasing production; however, in the long run, it led to the loss of good soil and decreased crop yields. It helped the Burkinabé farmer, but also hurt him.

Fragility Can Be Overcome:

Plowing technology is not in itself a bad thing. Plowing was just not appropriately implemented into the rather fragile Burkina Faso environment. Farmers did not understand that their actions in introducing plowing technology adversely affected the land.

As a general principle then, any new technology must be implemented

carefully and appropriately according to the conditions of the place where it is introduced. For Burkina Faso, land availability and keeping vegetation and soil in place are important considerations to take into account.

Plowing can be used appropriately in Burkina Faso as long as farmers know how to keep vegetative cover and place erosion control techniques in their fields.

Conclusion:

There are many simple technologies and methods that can be employed to help Burkinabé farmers and herders face the challenges of a fragile existence. Regardless of the specific method or technology introduced, the goal should be to create and maintain a stable production of crops or cattle so that families can meet their basic needs year after year without degrading the environment.

Please consider the Burkinabé people and the challenges of being a farmer or herder in a fragile environment. It is not because of laziness or poor morality that they find themselves struggling to survive. There is often little choice for them as many of their circumstances are out of their direct control.

It is not an easy thing to live from day to day in great uncertainty about the future. People lose hope and suffer greatly when they are unable to support themselves or provide for their family.

Verbree International is sending development workers to help Burkinabé farmers and herders to cope with their fragile existence. By promoting improved and sustainable agricultural practices and teaching the ability to handle emergencies such as drought, it is their desire to instill hope in the Burkinabé people.

For More Information:

To learn more about how you can be involved in this work, see the back page of this issue.

Desertification and the Sahel

Introduction:

People who live in temperate areas, where there is plenty of precipitation and a range of temperatures not too hot or too cold, often have a mental picture of what a desert looks like—sandy, empty, and incapable of supporting any life except cactus and camels. But did you know that roughly two billion people live in and near dryland climates?

Living in a dry, harsh environment is not for the lazy or carefree. There are many special challenges. Especially in recent years, the problem of desertification in lands adjacent to deserts has been particularly severe and has led to the disruption of livelihoods and much suffering.

This article serves to explain what desertification is, how it has affected people, and what can be done to reverse it.

Climate and Geography Lesson:

Climate has to do with the amount of precipitation an area receives and how hot or cold it gets. A dry climate (or dryland) is defined as any place where there is a water deficiency in the air. In these areas, water evaporates (“boils” if you will) at such a high rate because the air is essentially always “thirsty”. Despite some amount of rainfall, the high temperatures and winds in drylands cause the air to continuously crave more water.

Dry climates cover 30% of the earth’s land surface. They typically occur 15° north or south of the equator because by the time hot, wet air travels here from the equator, there is no more moisture left to form clouds and rain. This means plenty of blue sky throughout most of the year!

The Sahara Desert and the Sahel:

This is the case with the Sahara Desert, the second largest desert in the world (Antarctica is technically the largest!). Located in northern Africa, the Sahara stretches from the Atlantic Ocean in the West to the Red Sea in the east, covering 3.5 million square miles.

The area south of the Sahara Desert



Illustration 4: Satellite image of the Sahara Desert in North Africa (<http://visibleearth.nasa.gov>)

is considered a semi-arid steppe region. It is still a water-deficient area, but not to the same extreme as the true desert. It is called the **Sahel** (Arabic word for shore) and stretches from Senegal in the west to Sudan in the east.

The Sahel is a savanna land with grasses, bushes, shrubs, and some small trees. It receives 6-20 inches of rain per year which definitely limits the amount and type of crops that can be grown. With this small amount of rainfall, only a handful of crops including millet and sorghum, grow well there.

Because of this and the presence of grasses and bushes, herding is the main land use. However, recently, many parts of the Sahel have lost vegetation and become more and more like a desert. This process of “becoming desert-like” is called **desertification**.

What causes it? Is it a result of such things as global warming and climate change? Or is it brought on by human beings and their activities?

As it turns out, humans are the most to blame in this devastating process that hurts the livelihoods and makes life very fragile for Sahelian people.

The Process of Desertification:

Have you ever witnessed a huge rainstorm and watched water gushing off the surface of a parking lot? Ever been caught in a flash flood while hiking or camping?

This is called water **run-off** and is caused largely by heavy rains and a low amount of infiltration into the soil. Lack of vegetation can increase the speed of run-off. When the speed

of run-off is too high, it can wash away seed, leach nutrients from the soil or displace the soil itself. This is called **erosion**.

In the Sahel, conditions are set for erosion to occur. The leaching of minerals such as calcium into the lower layers of topsoil combined with the extremely high evaporation rates creates a concrete-like layer, called **hard-pan**. This along with the quick onset of heavy rains and the lack of vegetation during the lengthy dry season cause much soil erosion.

Wind also has the power to erode by blowing away soil. Illustration 5 shows how the presence of strong winds in Burkina Faso can erode a vast amount of soil (Burkina Faso is about the size of the state of Nevada).

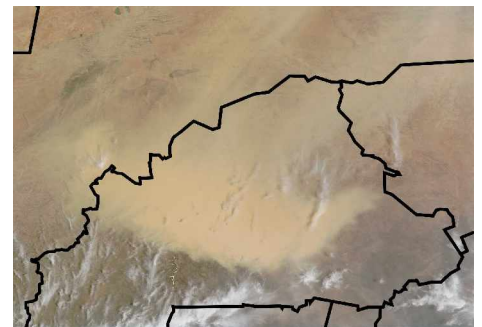


Illustration 5: Dust storm over Burkina Faso (<http://visibleearth.nasa.gov>, Jacques Desclotres)

What is so bad about erosion? When soil is lost, it is not easily regenerated from the rock below. Crops need a thick layer of soil to grow and yield well.

Even if only the very top layer of soil is washed away, a farmer loses valuable nutrients and organic matter that are crucial in making a soil fertile. Without topsoil, there is little infiltration of rain water. Plants take up most of their water through their roots. Thus, when there is no infiltration and the water runs away, plants cannot get the water they need. Plants then dry up and die and the cycle of losing soil and vegetation continues.

As this happens, the land begins to look like a desert with no vegetation for miles. Barren and unvegetated

land may even cause the local climate to become hotter and dryer. Plants and trees are capable of holding much water in their roots, stems, and leaves. They perspire this water into the thirsty air, where it can rise, grow cooler, and fall back as a local rain. But with no vegetation, there is no perspiration, and thus no rain. Plus, whereas plants tend to absorb sunlight, barren ground tends to reflect it. This increases area temperatures which in turn leads to evaporation of any water that may be blown in from other air masses.

A Picture of Desertification:

So what does desertification look like? First let us look at a healthy vegetation amount that the Sahel supports (Illustration 6).



Illustration 6: Typical Sahel Vegetation in Burkina Faso (VI)

Looks a little sparse, but not bad considering the water deficit present.

Now contrast this picture with Illustration 7. The second picture is barren. It looks like a wasteland, capable of supporting nothing. Yet there are trees in the far background, indicating that it does not have to be this way.



Illustration 7: Desertified land in the Sahel (VI)

Causes of Desertification:

From the process already described, one can guess that it is not necessarily the lack of rain that is the problem, although droughts clearly have a role in starting and increasing the desertification process.

There are theories that **global warming** is causing climates to be getting hotter and drier. However, they have yet to be definitely established in the scientific world. Proving these theories is very difficult to do.

Scientists do agree that the problem of desertification stems from a cycle of losing vegetation, making the land vulnerable to water and wind erosion, that further causes the loss of soil and nutrients that make support of vegetation impossible. There is evidence that humans and their activities such as deforestation, overgrazing, and over-cultivation, can bring on this cycle.

People in the Sahel need fuel. Oil or gas is often not available or too expensive, so they cut down trees for firewood and de-forest the land. This leaves it exposed to erosion. Similarly, when cattle and goats graze the grass, bushes, and shrubs at a faster rate than it grows back, the land becomes barren of vegetation.

Sometimes, farmers are to blame when they clear land. By the **slash-and-burn** method, they burn down small shrubs and trees to clear a field just before the rainy season. This initially provides nutrients to the soil, but leaves the land barren and exposed to erosion when it does rain.

Population Factors:

If humans are to blame, why cannot we just stop our harmful activities? The reason is that humans have to live, and humans are growing in numbers in the Sahel region at rates that are among the highest in the world (2-3% per year). The increasing number of farmers has led to more cleared land. The increasing number of herders means more goats and cattle.

In earlier times, there was enough land for farmers to create a rotating system where they grew crops and then allowed the land to rest for a period of years. This was called a

fallow. The land was allowed to naturally regain the nutrients it lost. This fallow system of farming, however, has nearly disappeared in Burkina Faso.

In the past, semi-nomadic herders rotated their cattle through different areas allowing vegetation to recover as well. Now, overgrazing is more common as less and less vegetated land is available for semi-nomadic people.

Burkina Faso's Desertification Problem:

The Yatenga region, located in northwestern Burkina Faso, experienced severe desertification in the 1970's as a result of human and environmental factors.

In the 1960's, the area received adequate rain, so herds grew large as plenty of vegetation was available. However, in 1968, a 5-year drought began. During this time, the large herds of cattle ate everything in sight severely desertifying large areas. Eventually with nothing to eat, all of the cattle starved. People were forced to sell them. A famine ensued when all crops failed. People were forced to move away or receive emergency food aid.

It was a sad example of how the mismanagement of cattle coupled with a few drought years led to widespread suffering for the people of Yatenga.

Reversing Desertification:

Droughts do come. But can land that is desertified, with no soil base, ever recover to what it once was?

The answer to that question is an emphatic YES! Desertification can be reversed. The Yatenga region is proof of that. Today in 2006, Yatenga has recovered much of its soil fertility and agricultural production with the help of better land management techniques.

Reversing desertification starts with managing the wind and water erosion of soil. How is this done? It is mainly accomplished by stopping the flow of water runoff and slowing down the speed of the wind over land.

For example, in order to stop rain water from running along the surface of the land, one can build small rock

or soil **bunds**. These are simply small mounds placed along the contour of the land that serve to check the flow of the runoff water. When the water is slowed down, it cannot carry as much soil and will actually begin to deposit it back. Plus, as the water mostly stays in place, it eventually soaks into the ground. So the problem of soil erosion and water infiltration is solved because soil and water are retained, not lost to the crops and plants on the land.

There are a variety of other methods and simple techniques that farmers and herders in drylands can use to slow down water and wind erosion including:

- Leaving mulch or crop residue on their fields during the dry season
- No-till or low-till plowing methods
- Trapping water with micro-catchments

- Growing trees as windbreaks

The goal of all of these methods is to retain every drop of water that falls and every atom of soil, organic matter, and nutrient possible.

Conclusion:

Scientists in a recent Millennium Ecosystem Assessment conducted by the United Nations (and associated scientific organizations) concluded that desertification poses a great threat to the health and well-being of millions of people in arid and semi-arid regions of the world. For those of us in less fragile environments, it is hard to understand how devastating it can be to lose soil and have crop and herd production decreased. But the fact is that it is a hard thing to cope with and many people suffer from poverty as a direct result of it. Ironically too, it is the very livelihoods of the people (farming, herding) that have a part in causing the trouble.

To learn more about the topic of desertification and how it relates to human poverty and livelihoods, look up the Millennium Ecosystem Assessment at:

<http://www.millenniumassessment.org>

Look for the Desertification Synthesis Report as a pdf file.

Questions or comments about this article? Feel free to email Cheryl Verbree at: cheryl@verbree.org

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Quick Facts

Average Minimum (night) and Maximum (day) Temperatures (in degrees F) in Burkina Faso												
Time	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<i>Ouagadougou, Central Burkina Faso</i>												
Day	91.5	98.5	104.0	102.0	100.5	97.0	91.5	88.0	89.5	95.0	97.0	95.0
Night	61.0	68.0	73.5	79.0	79.0	75.0	73.5	72.0	73.5	73.5	72.0	62.5
<i>Gorom, Northern Burkina Faso</i>												
Day	89.5	95.0	100.5	107.5	106.0	100.5	97.0	91.5	100.5	100.5	95.0	89.5
Night	54.0	62.5	72.0	79.0	82.5	79.0	77.0	73.5	77.0	77.0	64.5	59.0

Source: *The Rough Guide to Africa*, Jim Hudgens and Richard Trillo, *Rough Guides*, New York, 2003

Comparisons of Population and Size		
Place	Population (millions)	Size (sq. miles)
Burkina Faso	13.9	105,462
Nevada	2.3	109,826
Pennsylvania	12.4	44,817
Italy	58.1	115,858

Sources: CIA World Factbook, 2006, <http://www.cia.gov/cia/publications/factbook/geos/uv.html> and US Census Bureau, State and County Quick Facts <http://quickfacts.census.gov/qfd/states/32000.html>

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