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The Future Burkina Faso: Ending Food Insecurity

An overview: An average family living in Burkina Faso would have six people: mother, father - (possibly participating in a polygamous relationship), and four children. Four-fifths of the people living in Burkina Faso live in a rural area on a half-acre farm that grows rice, sweet potatoes, beans, cotton and/or mangoes. The food crops are the main diet of the Burkinabe, and cotton is one of the major exports. Gold is the other major export. To grow crops on a small area of generally degraded land, farmers use a technique called “zai” which consists of digging small holes and filling them with nutrients (like manure) and then growing crops on top of them. In addition, they create stone lines to slow runoff and prevent erosion in the flood plain areas of the country. The education level is poor with the main problem being a lack of schools in the rural areas. Health care, unlike education, is growing, and 65% of the population has a health care center less than an hour away (Statistics). Burkina Faso has the potential for great advance; however, they must push past the boundaries of dealing with poor roads, high tariffs (for example, the agricultural export at 14.6% compared to their non-agricultural exports, like textiles, at 11.5%) (“Export Impact for Good”), natural disasters, gender discrimination in both communities and jobs, and the heavy reliance upon cotton and gold as primary exports.

Nelson Mandela once said, “Education is the most powerful weapon which you can use to change the world” (Nelson Mandela Quote). This quote suggests that education is vital to helping improve the world socially, economically, and environmentally. Burkina Faso, a landlocked country located on the west coast of Africa, is the seventh poorest country in the world and it is saddled with a poor education system with less than 3.2% of men and less than 1% of women graduating from secondary school (Burkina Faso Education Stats: NationMaster.com). With a literacy rate of under 30%, the country struggles at the farm level with learning new agricultural production techniques, having access to new technology and environmental conservation practices. As a result, Burkina Faso is in a constant fight with food insecurity and poverty which has stricken many of the residents throughout this country especially in the rural areas. By creating a better education in agricultural production for the people of Burkina Faso, I hope to combat food insecurity by raising overall income, helping save the environment and involving other major world organizations.

My first priority is to raise the overall income level of farmers in Burkina Faso. This can be achieved through raising production through education on food production techniques, researching different growing techniques and new crops that would be in demand for export markets and investing in irrigation. Researching alternative types of crops could help diversify production and give farmers advantages in the market. Farmers could add to the typical crops of cotton and mangoes (general cash crop of Burkina Faso) with more unique crops such as sesame seed and okra (which actually grows well naturally due to their ability to sustain drought-like conditions, but this seed has never been produced commercially). With a limited number of cash crops, farmers have to compete with other growers in the country which lowers profit when

prices fall due to an oversupply of one single crop. A diversified market of crops with constantly balancing prices is a more stable option. Diversifying the market of crops in Burkina Faso would work because the Millennium Challenge Cooperation did a similar project where they taught farmers about the benefits of growing other crops and 100% of the farmers applied at least one of the techniques they learned and 98% of the hectares approved due to these practices (“Burkina Faso Compact”). Other ideas would be the creation of a larger number of cotton purchasing options for farmers in addition to the near monopoly Sofitex organization (which like the US in the late nineteenth century is allowing one owner to control all of the resources) and development of value chains for livestock, fruit, vegetables and sesame. Value chains encourage cooperation from the farmer to the processor through to the consumer and increases value of the product at each step (like how a bushel of wheat is bought from a farmer at \$8.00, which is turned into 42 loaves of bread, sold at \$2.37 each- \$99.54 for 42 loaves, creating a large profit as it flows through the chain). They also attract private investment from companies such as AGR. Modern cotton production technology should be encouraged such as the use of BT Cotton which produces varieties that will reduce the use of insecticides because the insect resistance gene has been bred into the variety.

A national effort to create a better agricultural extension program is a priority. Extension agents would help teach farmers about new production methods and technology, pest control, and marketing their crops. People in this field should have a Bachelor of Agriculture degree, which would help create a higher general education level in the rural community. Extension agents need to first focus on convincing the village elders that the new production practices are worthwhile, because the elders are the village leadership. A national effort should be pushed for women to become extension agents also because women are a major component of the agricultural sector, and this would address gender discrimination problems in the workplace. Encouraging women to join the extension field workforce would allow for a growing demand for high school and secondary education diplomas creating a national effort towards the idea of going to school (raising the primary school enrollment rate from 41.7%) (Burkina Faso”). This will also create more income for women and help end the taboo against women working outside the farm and encourage a national ideal of the importance of women supporting themselves opposed to relying on their husband’s income. If an extension program was formed, a way of encouraging people to apply for this job field would be the creation of a tax break on income for all extension workers.

Changing growing techniques from “zai” and stone line erosion control to more modern methods like chemical fertilizer and cover cropping for erosion control can ensure a more stable nutrient base for crops. There is also a big need for more irrigation infrastructure in Burkina Faso (especially in the central area of the country which is known for year around droughts). The development organization, the Millennium Challenge Corporation, established 16 water user associations and trained 207 executive monitors to allow for the beginnings of a better irrigation system throughout the county. As a result of this approach, Burkina Faso now has 2240 new hectares of irrigated land, (“Burkina Faso Compact.”). Assistance from the government for chemical fertilizer purchase, erosion control, and irrigation is very important. A small investment into improved practices will have a high return on investment in the end. As a start to improve agriculture, the Burkinabe government could contact companies such as Scott’s Fertilizer, to ask for donations of their products which would benefit Scott’s because the farmers

would become trustworthy of their product and become prone to buy it. Creating more food processors would create a mutual relationship between farmers and processors because it would have an overall benefit to all parties which would result in more stable income.

My second priority is to avoid environmental degradation in Burkina Faso while creating a more industrialized and modern agricultural for the country. Through a national extension program, agents can inform farmers about inexpensive techniques that produce higher yields while preserving the environment. Methods to be encouraged include crop rotation, which limits the buildup of diseases and pests; cover-cropping, which limits erosion by creating a natural barrier for water as well as growing different crops during off seasons to maintain soil quality; planting a rain garden, which creates a natural barrier for runoff as well as combats desertification and adds an extra minor food source to a family farm; and the use of rain barrels to collect excess rain to reuse for irrigating fields (9 Inexpensive Ways You Can Prevent Erosion). As world population grows, Burkina Faso's number of farmers should increase, and urbanization will sky rocket. Consideration should be given to transport of crops in energy efficient vehicles as well as the use of renewable energy resources to manufacture their products. Burkina Faso has inadequate road and rail infrastructure (only one main railway from Ouagadougou, Burkina Faso to Abidjan, Ivory Coast), so there needs to be input on how to rectify this situation for farmers to get their products from one place to another in an energy efficient manner. Burkina Faso railways could improve by considering the Millennium Challenge Compact study created on roads. In this test, 58% of rural roads were rehabilitated and 71% of the goal new rural roads were created ("Burkina Faso Compact"). With the same, if not higher results coming out of a new railway project, Burkina Faso would be transformed into a trading force. With simple environment friendly methods, Burkina Faso can become an important trade center while also keeping a healthy atmosphere based on renewable energy and energy efficient transportation.

My final priority is to encourage major donor organizations in the fight against food insecurity in Burkina Faso. With help from both the national government and third party organizations, Burkina Faso should have sufficient money to start, maintain or further expand projects such as I have addressed above. I would like to include organizations that focus on different topics such as agricultural education (or general education), support for women and saving the environment. An organization already helping in Burkina Faso is "Save the Children"; this organization focuses on enrolling children into school, especially girls as well as bringing healthcare to the country. Biodiversity International is an organization that focuses on helping teach small household farmers techniques for sustainable agriculture (40 Organizations That Are Shaking Up the Food System). This would be important in Burkina Faso because many farms only produce enough food for their own family to eat. The Burkinabe Government could encourage Bioversity International to have monthly meetings with farmers as a way to get new information out as well as putting emphasis on the farmers asking them questions in order to create new discussions and ideas. As a final organization, I would include The United Nations program because they focus on all three aspects for Burkina Faso (United Nations Environment Programme (UNEP) - Home Page). Being a part of the United Nations would also create a connection and sense of unity for Burkina Faso with other countries in the world and allow for possible new trading agreements to emerge.

As the problem of food insecurity increases in Burkina Faso, a national effort must be put forth to educate others about agriculture in order to help raise income, save the environment, and keep a steady source of income and recognition from other major world organization. Burkina Faso is one of the poorest countries in the world, and its residents struggle daily with poverty and food insecurity. The country's potential is great, but in order to have the path to success, Burkina Faso's farmers must learn more about new techniques and technology in agriculture as well as create more competition amongst farmers and processors in the area in order to create a bigger profit for all parties. The country's problem can be fixed rapidly by implementing a national effort for agricultural extension agents whose job is to visit farmers and give advice about potential diseases or new crop varieties in order to ensure one is getting the most bang for their buck in both crops and processing. With the great potential the country has, I hope to one day see the country form their own success and development through agriculture. I hope to see success in both sustainable farming as well as production farming because both will raise overall income and bring a better reputation to Burkina Faso.

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