Background Guide

World Food Program

Topic: Climate Change and its Impact on Food Security

Introduction to the Committee

The World Food Program (WFP) was first established in 1961 after the 1960 Food and Agricultural Organization (FAO) Conference, when George McGovern, director of the US Food for Peace Programs, proposed establishing a multilateral food aid program. WFP was formally established in 1963 by the FAO and the United Nations General Assembly on a three-year experimental basis. In 1965, the program was extended to a continuing basis.[1]

The WFP is governed by an Executive Board which consists of representatives from 36 member states. Josette Sheeran is the current Executive Director, appointed jointly by the UN Secretary General and the Director-General of the FAO for a five-year term. She heads the Secretariat of WFP.[2]

WFP strives to eradicate hunger and malnutrition, with the ultimate goal in mind of eliminating the need for food aid itself. The core strategies behind WFP activities, according to its mission statement, are to provide food aid to:

1. save lives in refugee and other emergency situations
2. improve the nutrition and quality of life of the most vulnerable people at critical times in their lives
3. help build assets and promote the self-reliance of poor people and communities, particularly through labor-intensive works programs

WFP food aid is also directed to fight micronutrient deficiencies, reduce child mortality, improve maternal health, and combat disease, including HIV and AIDS. Food-for-work programs help promote environmental and economic stability and agricultural production.

WFP's Five Objectives

1. Save lives and protect livelihoods in emergencies
2. Prepare for emergencies
3. Restore and rebuild lives after emergencies
4. Reduce chronic hunger and under nutrition everywhere
5. Strengthen the capacity of countries to reduce hunger

Executive Board[3]

The Executive Board oversees WFP's humanitarian and development food aid activities. The 36-member board meets four times each year at WFP Headquarters in Rome.

On January 1, 1996, four years after the revision of WFP's General Regulations, the organization's governing body was reconstituted into its current form - the WFP Executive Board (UN General

[1] http://www.wfp.org/about
[2] http://www.wfp.org/about/corporate-information
[3] http://www.wfp.org/about/executive-board

Assembly resolution 48/162). The Board consists of 36 members, of which 18 are elected by the Economic and Social Council of the United Nations (ECOSOC) and 18 by the Council of the Food and Agricultural Organization (FAO). Each member serves three-year terms and is eligible for re-election.

Executive Board Functions include:

- To help evolve and coordinate short-term and longer-term food aid policies
- To provide intergovernmental supervision and direction to the management of WFP
- To review, modify as necessary, and approve programs, projects and activities submitted to it by the Executive Director. In respect to such approvals, however, it may delegate to the Executive Director such authority as it may specify
- To review, modify as necessary, and approve the budgets of programs, projects and activities, and review the administration and execution of approved programs, projects and activities of WFP
- To report annually on WFP's programs, projects and activities including major decisions of the Board to the substantive session of the Economic and Social Council and the Council of FAO

Composition of the Members of the Board in 2012[4]

Elected by the FAO Council	Elected by ECOSOC	Term of office expiring (1)
Finland (2) Jordan Kenya Mexico Philippines United States of America	Burkina Faso France India Iran (Islamic Republic of) Russian Federation Spain (3)	31 December 2012
Cameroon Canada Germany Haiti Saudi Arabia South Africa	Australia Cuba Morocco Norway Republic of Korea Sudan	31 December 2013
Belgium Brazil Ghana (4) Slovak Republic Sweden Tunisia	China Czech Republic Guatemala Japan United Kingdom Zambia	31 December 2014

(1) Term of office relates to the standard three-year periods for which Members are elected by ECOSOC or FAO Council respectively. State Members may stand down for one or two years within this period, offering their seat to other State Member.

[4] http://executiveboard.wfp.org/members-of-the-board

(2) The Netherlands were elected for the term 2010/2011/2012. However following an agreement, effective 1 January 2012 they resigned in favor of Finland who will occupy the seat for the remainder of the term.

(3) Luxembourg was elected for the term 2010/2011/2012. However following an agreement, Luxembourg resigned in favor of Spain effective 1 January 2011. Spain will occupy the seat for the remainder of the term.

(4) Ghana is occupying the rotating seat. The rotating seat is to be occupied by a country of: List A- First term- 2012/2013/2014, List B- Second Term- 2015/2016/2017, List A- Third Term- 2018/2019/2020, and List C- Fourth Term- 2021/2022/2023.

Introduction to the Topic

Food security refers to the availability of food, as well as one's ease of access to that food. In the September 2010 issue of *Scientific American*, scientists predict how climate change up to the year 2050 will affect global agriculture. Counteraction to a change in growing seasons, events of extreme weather, an increase in pests, and a shift in regions of productivity is expected to come with a price tag of $7 billion per year. Developing nations, such as India and Mexico, are predicted to take the biggest blow with -28.8% and -25.7% changes in production, respectively.[5] The first priority of the World Food Program, prior to intervening in a country, is to access the food security situation of the population.[6]

Climate change, coupled with natural disasters, is nearly certainly linked to food insecurity and hunger. Desertification, floods, and deforestation are a few of the events that can be catastrophic to communities and their food supply. In response to these geological phenomena, the World Food Program devised a plan for responding to climate change: predict emerging natural disasters, react with emergency food and nutrition assistance, and help communities recover and rebuild after disasters and help them adapt to climate change.[7]

Past UN/International Actions

In 2008, the United Nations established the Task Force on the Global Food Security Crisis. The objective of the Task Force is "to promote a comprehensive and unified response to the challenge of achieving global food security, including by facilitating the creation of a prioritized plan of action and coordinating its implementation."[8] Since its establishment two years ago, the Task Force held a conference on climate change and bio-energy in Rome, was present at the Hokkaido Tokyo G8 Summit, and held an additional High Level Meeting on Food Security in Madrid.

Through these events, the Task Force has called for increased food production, fewer trade restrictions, and increased agricultural research. Most importantly, the Task Force was able to commit G8 leaders to including food security on their agendas in 2009. Similar, smaller task forces must be created in order to respond to simultaneous disasters in different areas of the globe. While United Nations organizations, such as the World Food Program and UNICEF, and other humanitarian aid organizations, such as the Red Cross, provide aid to devastated areas, it will become increasingly necessary in the near future for nations to ban together to solve the global problem of climate change.

No single, powerful nation or organization possesses the resources or ability to solve this issue alone. The aspect that sets climate change apart from other global phenomena is that, while its potential affects are actively being studied and predicted, both the location and time of manifestation are largely unknown. All nations, developed or undeveloped, will be affected in

[5] Michael Moyer, "How Much is Left?" *Scientific American*, September 2010, 78.

[6] "Food Security Analysis," *World Food Program*, 2010, http://www.wfp.org/food-security.

[7] "Climate Change," *World Food Programme*, 2010, http://www.wfp.org/climate-change.

[8] "The Secretary-General's High Level Task Force on the Global Food Security Crisis," *United Nations*, 2008, http://un.org/issues/food/taskforce/.

some manner.

Case Studies

"There can be no food security without climate security," explained United Nations Secretary General Ban Ki-Moon at the 2009 World Summit on Food Security. In his speech, he mentions the disastrous impact of the declining glaciers of the Himalayan Mountains on 300 million people in China and India, affecting 1 billion people across Asia. With a growing population, agricultural productivity must increase, regardless of these constraints on water.[9] Devastating floods in Pakistan during the summer of 2010 may foreshadow extreme weather as a result of climate change.

The World Meteorological Organization asserts that increasing Atlantic Ocean temperatures contributed to the floods. The receding floodwaters revealed 6.5 million people in need of food and drinking water, the food security of the nation in shambles.[10] The affects of climate change are being felt everywhere, as droughts in Russia and Canada have already reduced crop yields by 50%. Drought is also the culprit behind the declining size of food reserves in the United States, Europe, and Africa. A recent paper published in the *Proceedings of the National Academy of Sciences* brings to light hotter nights in Asia, which have cut rice production in certain areas by 10 to 25% over the past 25 years.[11]

A long term case study on the effects of CO2 on the world food supply was performed in a 1994 joint project between Columbia and Oxford University. After examining general circulation models for doubled atmospheric CO2 levels, the study found that climate change scenarios near the high end of the Intergovernmental Panel on Climate Change's range of doubled CO2 warming, 1.5-4.5 degrees Celsius, exerted a moderate negative effect on simulated world cereal production. This estimate even took beneficial direct effects of CO2, farm-level adaptations, and future technological improvements into account.

Price increases resulting from climate-induced decreases in yield are predicted to range between 24-145%. This does not bode well for the number of people at risk of hunger, a group expected to grow 350,000 larger by 2060.[12] While this case study does not pertain to any specific country, laboratory estimations such as this will be a wealth of knowledge for the creation of necessary food security frameworks for every nation. The true challenge of the topics of current and future food security is bringing together both agricultural and meteorological case studies for the construction of food security preparedness and response models. These plans, specific to every

[9] "'Food Security and Climate Change are Deeply Interconnected,' says UN Secretary General Ban Ki-Moon," 2009, *Circle of Blue*, http://www.circleofblue.org/waternews/2009/world/news-food-security-and-climate-change-are-deeplyinterconnected-un-secretary-general-says/.

[10] Nathaniel Gronewald and Climatewire. "Is the Flooding in Pakistan a Climate Change Disaster?" *Scientific American*, August 18, 2010, http://www.scientificamerican.com/article.cfm?id=is-the-flooding-in-pakist.

[11] Nathaniel Greenwold, "Record Droughts, Floods, and Fire Strain Food Markets' Resilience," *The New York Times*, http://www.nytimes.com/cwire/2010/08/12/12climatewire-record-droughts-floods-and-fires-strainfood-68330.html.

[12] Cynthia Rosenzweig & Martin L. Parry. "Potential impact of climate change on world food supply," *Nature* (367), January 1994, 133-138.

region of the world, must exhibit both strength and flexibility in the face of a variable and unpredictable climate.

Possible Solutions

There exist a number of technologies and strategies that have the potential to reduce the vulnerability of agriculture to climate variability and climate change. Some valuable strategies include the use of traditional knowledge, indigenous practices, and identified local innovations that exploit natural resource bases, which forebears have used for generations. Indigenous farmers have developed a multitude of farming systems finely tuned to many aspects of their immediate environment. A promising new technology that offers much potential is the application of seasonal to inter-annual climate forecasts.

Disaster preparedness strategies of both governments and NGOs have begun to take such forecasts into account. The goal now is to make a broad range of climate information from meteorological services available to small-scale farmers. Farmers can use this information to either plan for predicted climatic situations or carry out effective responses.[13] In some areas, effective farming adaptations would include simple improvements, such as irrigation and fertilization. This highlights another distressing issue: the disparity between developed and underdeveloped nations in sustainable agriculture. Systems must be created that ensure small farmers across the globe access to equipment for sustainable farming, in addition to pertinent climate information for effective preparedness and response to climate variability and change.

Questions to Consider

a. Many articles on climate change and its impact on food security include a number of predictions and simulations with varying probabilities for actual manifestation. What is the best route for your nation to take in the face of these theorized scenarios?

b. What agricultural changes need to be made in response to climate change? Food reserve changes?

c. What policy changes need to be enacted in response to changing methods of food security?

d. How would food security frameworks for your nation differ from (a) bordering nations and (b) nations across the globe? What conditions require these frameworks to be different?

[13] M.J. Salinger, M.V.K. Sivakumar, R. Motha. “Reducing Vulnerability of Agriculture and Forestry to Climate Variability and Change: Workshop Summary and Recommendations.” *Climate Change* (70), 1994, 341-362.