

## **Environment and Technology Committee**

### **Topic 1: Agriculture/Food Production**

Feeding the over 6.5 billion people of the global community is a leading priority for many nations worldwide as well as the Food and Agriculture Organization of the United Nations (FAO). To be sure, the ever expanding world population has placed a significant strain on food producing countries in recent years; this strain is projected to increase over the next few decades. Furthermore, issues such as climate change variations and pollution have greatly affected food production levels. As such, the debates over new technology concerning produce cultivation and farming techniques, including food safety, environmental impacts of farming, and food production levels, have come to the forefront of international relations. The Environment and Technology Committee's specialized knowledge on these issues will be an integral part in further debate of these issues.

In order to remedy these pressing issues, farmers in both developed and developing nations have begun to implement new technologies not only on traditional farms but also in fisheries and pastures. This new technology includes the production of high-yielding plant varieties (HYPV crops) as well as genetically modified foods. Furthermore, the use of aquaculture and hydroponics join the aforementioned technologies at the forefront of agricultural innovation. However, despite the documented benefits of these advancements, debate surrounding the safety and practicality of their use has limited full implementation on a global scale. In addition, the innovation of biofuel and the development of a balance between 'fuel' production and food production is a key topic of international debate.

Simultaneously, the global community is entrenched in programs to end world hunger in accordance with the Millennium Development Goals (MDGs). Recently, the FAO welcomed the launch of the Global Agriculture and Food Security Program, a new multi-donor trust fund managed by the World Bank to improve food security and incomes in low-income countries through assistance to agriculture. The new mechanism is designed to address the underfunding of country and regional agriculture and food security investment plans, making aid more predictable in the fight against hunger. However, more needs to be done in order to ensure food production and price stability for the present as well as the future.

#### **Questions:**

1. How can the development and secure implementation of High-Yielding Plant Varieties (HYPV) and genetically modified agricultural products become a reality for developed and developing countries alike? What are some obstacles that need to be overcome in these fields?
2. How does the FAO currently reach out to all nations and what can be done through this organization in the future?
3. In what ways, and through what programs/technologies, can developed and developing nations coordinate aid efforts? What is the best way to ensure that MDG 1, target 1c?
4. In what ways do biofuels endanger food production? How can a balance be set?

## Resources:

- 1. World Agriculture: Towards 2010:** <http://www.fao.org/docrep/V4200E/V4200E00.htm>  
Report from FAO about the state of world agriculture looking forward to 2010 that addresses issues like sustainability, deforestation, and trade issues. It is comprehensive.
- 2. Biofuel Demand Pushes Up Food Prices:**  
<http://www.imf.org/external/pubs/ft/survey/so/2007/RES1017A.htm>  
IMF survey that expounds on the dilemma of biofuels.
- 3. 20 Questions on Genetically Modified Foods:**  
<http://www.who.int/foodsafety/publications/biotech/20questions/en/>  
List of twenty questions on the WHO site about the benefits, dangers, and other various quandaries regarding genetically modified foods.
- 4. Benefits and Costs of Pesticide Use:**  
<http://www.iaea.org/Publications/Magazines/Bulletin/Bull243/24305183841.pdf>  
Report from joint conference between IAEA and FAO about pesticide use. Pesticides have increased agricultural production at some expense of the environment.
- 5. Crops and Drops: Making the Best Use of Water for Agriculture:**  
<http://www.fao.org/DOCREP/005/Y3918E/Y3918E00.HTM>  
Document from FAO about water and agriculture. It presents the situation, problems associated with water usage in agriculture, and possible solutions.
- 6. Millennium Development Goals:** <http://www.un.org/millenniumgoals/poverty.shtml>  
Main MDG-UN website concerning the eradication of extreme poverty and hunger by 2015.
- 7. FAO Biofuel Factsheet:** <http://www.fao.org/bioenergy/foodsecurity/befsci/62379/en/>  
Information to supplement the IMF biofuel findings – specifically notes sustainability as a key factor
- 8. FAO Country Agriculture Profile:** <http://www.fao.org/countryprofiles/default.asp?lang=en>  
Member nation information for the FAO – includes international trade laws concerning genetically engineered foods as well as domestic/international food production and import/export
- 9. USDA Global Agriculture Report:** <http://www.pecad.fas.usda.gov/>  
Information about global agriculture production levels and future trend possibilities
- 10. WHO Main-page:** <http://www.who.int/en/>  
The main website for the World Health Organization (WHO) – basic information about nutritional related issues.

## **Environment and Technology Committee**

### **Topic 2 – Waste Management**

As the global population expands, so does the amount of waste, both organic and inorganic, that the human race produces. To be sure, waste disposal is a significant global issue that is often overlooked. And while many developed nations – especially the high-income industrialized nations of Western Europe - have extensive waste management facilities and systems in place, many areas of the industrializing world do not. Significant environmental and health issues stem from improper handling and disposal of waste materials and, as such, waste management should be listed at the forefront of the Environment and Technology Committee's agenda.

As noted above, when disposed of improperly, hazardous waste materials have detrimental effects on the environment and human well-being. And while there are safe and effective ways to dispose of these materials, many nations lack the necessary infrastructure. Traditional waste management strategies include the reuse and recycling of materials as well as their removal through incineration and landfills. However, many of the previously effective solutions are no longer viable when compared with present and projected waste levels. As such, new technological advancements need to be created and expanded upon. An example of this type of waste technology is that of plasma arc gasification to reduce the amount of waste being sent to traditional incinerators or landfills. Additionally, hazardous waste, such as radioactive waste and chemically/ biologically hazardous waste, deserves the immediate attention of the global community.

The reduction of waste levels is imperative for the ecological well being of the planet as well as the general health of the global population. The global community must respond to these issues in order to ensure the health and well being of the planet for future generations.

#### **Questions:**

1. What are some current methods of waste disposal that will no longer be viable in the near future? What are some innovations that can be implemented?
2. How will low income and developing nations acquire the necessary infrastructure and technology to deal with their waste, both hazardous and non-hazardous?
3. Are there any methods to reduce the amount of waste that is produced even though the population is expanding? What are they and how can they be achieved?

#### **Resources:**

1. **Future of Waste Disposal:** <http://attra.ncat.org/attra-pub/anaerobic.html>  
This site will be useful to learn about Anaerobic Digestion of Animal Wastes and the Factors that need to be considered.
2. **Anaerobic Digestion and Bio-Gas Techniques:**  
<http://www.mrec.org/anaerobicdigestion.html>

This site will be useful to learn about Anaerobic Digestion and Bio-Gas. There are use links to organizations that are involved in anaerobic digestion and bio-gas.

3. **Plasma Arc Gasification:** <http://earthanet.com/2008/01/28/plasma-arc-gasification-turning-garbage-into-gas/>  
This website details the idea of Plasma Arc Gasification
4. **Waste Disposal:** <http://www.umich.edu/~gs265/society/wastedisposal.htm>  
This website discusses waste disposal and different waste disposal methods.
5. **US EPA Waste Disposal Plan:** <http://www.epa.gov/epawaste/nonhaz/municipal/>  
This website discusses different types of waste disposal of non-hazardous waste.
6. **Hazardous Waste Disposal Methods:** <http://www.epa.gov/ebtpages/wastwastedisposal.html>  
US EPA's methods of hazardous Waste Disposal
7. **United Nations Sustainability Program:**  
[http://www.un.org/esa/dsd/susdevtopics/sdt\\_wastsoli.shtml](http://www.un.org/esa/dsd/susdevtopics/sdt_wastsoli.shtml)  
Information concerning the UN Sustainability program and waste disposal relations
8. **Global Waste Management Techniques and Programs:**  
<http://webapps01.un.org/dsd/partnerships/public/search.do?dispatch=search&searchLogic=searchTypeAnd&keywords=&partnerFreetext=&themeSearchType=0&themes=113&subRegion=&from=s&resultPerPage=0&search=Search>  
Information concerning global methods of waste management
9. **UNITAR Findings:** <http://www.unitar.org/cwm/>  
United Nations Institute for Training and Research findings about global waste management
10. **Waste Water Treatment:** <http://water.me.vccs.edu/courses/ENV149/methods.htm>  
Water treatment information concerning health and sustainability of water resources

## **Environment and Technology Committee**

### **Topic 3 – Internet Censorship**

The concept of censorship of information has existed in society since the early days of recorded history. However, with the advent of mass media the methods of censorship have changed. In the late 20<sup>th</sup> and early 21<sup>st</sup> centuries a new form of mass media has evolved: the Internet. The emergence of a virtually endless number of digital connections now links the entire world to each other through a continually growing medium. To be sure, the Internet has become the primary method – due to its speed and convenience – of spreading information at a global level. As such, the type of information available on the Internet has become, in recent years, a key concern for many national governments.

As the Internet grows, so does the concern from governments. Issues range from concerns involving terrorist organizations and international espionage to the censorship of anti-government material. Jurisdiction issues arise with the Internet's international nature, which transcends traditional national borders. This issue is complicated by the fact that different governments hold differing censorship laws as well as differing – and sometimes opposing - views on human rights and the freedom of speech. For example, the withdrawal of the Google Corporation from Chinese market stems from disagreements on the censorship of its search results in the People's Republic. With the millions of Internet connections made daily this issue is only expected to expand. The case for and against Internet censorship is strong. The ideas of freedom of speech and expression must be counterbalanced by security and legal issues. The Environment and Technology committee has the required expertise to discuss and debate these issues.

#### **Questions:**

1. What are the reasons a country would attempt to censor the internet in part or in full? Are there positives/negatives in regards to censorship?
2. Are there current international censorship laws? Should there be? How far should nations go in reference to censorship?
3. Are there alternatives to internet censorship? What are they and how can these methods be effective in maintaining global security while allowing for the adequate freedom of expression?

#### **Resources:**

1. **OpenNet Initiative:** <http://opennet.net/research>  
Research done by ONI that investigates each Internet enabled country's censorship
2. **Internet World Stats:** <http://www.internetworldstats.com/stats.htm>  
Statistics dealing with Internet usage across nations
3. **The CPA Journal:** <http://www.nysscpa.org/cpajournal/2003/0703/features/f072403.htm>  
A report that highlights certain legal disputes dealing with Internet jurisdiction, both domestic and international

- 4. Amnesty International:**  
<http://www.amnestyusa.org/document.php?lang=e&id=50A38A55EB758C0C80256C72004773CD>  
A lecture dealing with Chinese censorship and its effect on China's populace
- 5. Global Integrity:** <http://commons.globalintegrity.org/2008/02/internet-censorship-comparative-study.html>  
A report that compares the censorship methods and usage across multiple nations
- 6. History of Internet Censorship:** <http://www.rense.com/general69/intercens.htm>  
A concise history of Internet Censorship
- 7. How Internet Censorship Works:** <http://computer.howstuffworks.com/internet-censorship.htm>  
Details the different types of internet censorship and their implications
- 8. Pros and Cons of Censorship:** <http://www.edubook.com/pros-and-cons-of-internet-censorship/22595/>  
Lists the pros and cons of censoring the internet in specific reference to protection of women and children
- 9. US Position on Censorship of Internet Materials:**  
<http://www.state.gov/secretary/rm/2010/01/135519.htm>  
US Position on the censorship of the internet in the United States (reference point)
- 10. Responsible Computing:** <http://courses.cs.vt.edu/cs3604/lib/Censorship/notes.html>  
History of, and alternatives to, internet censorship in the US and worldwide.