

CBA Curriculum Unit

# HUMANS AND THE ENVIRONMENT: CHINA'S ENVIRONMENTAL CHALLENGE

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**CBA TOPIC: Humans and the Environment**

**LEVEL: High School**

*This document is intended to assist teachers who are implementing the Humans and the Environment CBA for high school students, but may also be useful to anyone teaching about world issues, international relations, and related fields.*

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**WASHINGTON STATE CBA (CLASSROOM-BASED ASSESSMENT):  
HUMANS AND THE ENVIRONMENT**

The Humans and the Environment CBA states, “responsible citizenship requires understanding how humans interact with the environment.” It requires students to *either* propose a solution to a current environmental issue that will improve the health of the system or analyze a historical situation in terms of the environment and propose a reasonable alternative that would have improved the health of the system.

**What does the CBA require students to do?**

- Provide accurate analysis of the positive benefits and/or negative consequences of multiple stakeholders’ uses of the environment related to a contemporary issue OR a historical situation.

*For a contemporary issue*

- Propose a reasonable solution to the issue in terms of improving the health of the system.

*For a historical situation*

- Analyze the historical situation in terms of the environment and propose a reasonable alternative in terms of what would have improved the health of the system.

*For either*

- Cite, restate, paraphrase, and interpret relevant information from specific sources.

**Note:** The presentation may take place as an oral presentation (e.g., PowerPoint, theater, speech, video, multi-media presentation, etc.). However, the student will also need to put his/her findings in written form (e.g., written report, article, essay, editorial, etc.).

For more information please see the OSPI website under social studies assessments. The graphic organizer and scoring rubric for this CBA which appear at the end of this document are also available at the following OSPI website:

- OSPI’s instructions for teachers and students:  
<http://www.k12.wa.us/assessment/WASL/SocialStudies/CBAs/HS-HumansEnvironment.pdf>
- Examples of completed exemplar student papers including rubric scores:  
<http://www.k12.wa.us/assessment/WASL/SocialStudies/CBAs/HSHumans.pdf>

**NOTE TO TEACHERS:**

This curriculum unit is divided into four parts. There are numerous steps to each part. If you have limited time, feel free to pick and choose. Depending on students’ backgrounds and interests and your curriculum guidelines, you may want to focus your time on certain sections. Although the purpose of this unit is to prepare high school students to successfully complete

the Washington State Social Studies CBA on Humans and the Environment, teachers from all disciplines wanting to explore this important global issue with their students can easily use this unit. There are more than a dozen highly recommended resources for student research included here. We suggest that you hang chart paper in your classroom or have the students individually keep a running list of environmental issues as you go through this four-part curriculum.

### INTRODUCTION FOR TEACHERS

Shortly after Mao Zedong's death in 1976, Deng Xiaoping and other reformers moved to grow the People's Republic of China's economy by instituting new "reform and opening" (*gaige kaifang*) policies. After three decades of spectacular economic growth, China has emerged as the so-called factory of the world. Industry continues to expand and grow in almost every category of manufactured goods from shoes to cameras, and from bikes to semiconductors. It is now the world's largest consumer economy. Along with its spectacular growth have emerged a host of environmental problems.

Before discussing these challenges, it is important to point out that China's geographic environment is complex. Its vast terrain and varied climate make it the sixth most biologically diverse country on the planet. If you traveled all around China you would see glaciers and deserts, wetlands and high-altitude grasslands, tropical rainforests and rice paddies carved into sides of mountains. You could explore the world's largest and highest plateau or sail along its long eastern coast. It has some of the highest mountains in the world and two of the world's longest rivers. China is comparable in size to the U.S. yet it has four times the population. Arable land covers only 14 percent of its territory.

With China's huge population, intense economic development, and rising energy consumption, China now faces many serious environmental challenges. These include:

- Air pollution
- Water shortages
- Water pollution
- Deforestation
- Desertification
- Disappearing wetlands
- Biodiversity losses
- Cropland losses
- Depleted fisheries
- Trash accumulation

To meet these challenges, the Chinese government instituted their "greenest" Five-Year Plan (2006-2010) yet. It calls for an environment-related investment of 1.3 trillion yuan (\$180 billion), an increase of more than 85% over the past five years. The Eleventh National

People's Congress (NPC) in March 2008 raised the status of China's State Environmental Protection Agency to ministry level. The NPC outlined a number of new policies: it increased fines for all types of pollution, stopped tax breaks for heavy industry, and reduced subsidies on fuels. It continues to require all new coal-burning power plants to install desulphurization equipment, increase monitoring of old plants, and provide incentives to scrub emissions. The government is striving to put more "teeth" into its law enforcement. It is also promoting cleaner power sources, such as natural gas and windmills. China has the world's highest wind energy potential. The wind resources in Inner Mongolia alone are thought to be sufficient for most of the power needs of Beijing and the rest of northern China. Sun power is beginning to change some of the unpowered rural areas. By 2020 nuclear power is projected to increase five-fold and hydropower three-fold.

Still Beijing's response to its mounting pollution pressures so far has been limited. Rapid economic growth continues to supersede environmental considerations. While the Chinese government in theory supports environmental protection, in practice the government appears to be dragging its feet. The huge leap in industrial growth overwhelms any baby steps being taken to clean up the environment. As mentioned above, the volume of environmental laws are extensive, yet implementation and enforcement have been inconsistent at best. Problems include vague language; a weak and independent judiciary; and poor enforcement. In addition, economic decentralization has resulted in local governments focusing on local concerns. Often local officials have an economic stake in the industries they are in charge of regulating.

As Beijing slowly grapples with the ramifications of rapid economic growth, hundreds of small environmental organizations have quickly sprung up in recent years. When factory owners and government officials ignore industrial pollution, victims sometimes take matters into their own hands and stage protests or strikes. According to government statistics, there were 60,000 pollution-related protests or demonstrations in 2006 (compared to 51,000 in 2005). With the help of social activist lawyers and "60 Minutes-type" investigative reporters, these whistleblowers occasionally succeed and a chemical factory dumping pollutants upstream is closed down. Sometimes they don't succeed. As mentioned above, local governments often run the smelters, paper mills, and polluting enterprises. They also control and fund the local judges and police.

In this curriculum unit, students will learn about China's current environmental situation and explore the complex challenges facing the leadership and the peoples of this diverse land. First, they will take a brief environmental quiz and then they will have a chance to study an extensive fact sheet. In a role-playing exercise, students will explore multiple perspectives and points of view in order to understand the challenges and obstacles facing both the Chinese leadership and citizens. This unit will then guide the students in breaking down this huge topic and choosing one aspect to research and present. They will be guided to analyze maps, graphs, articles (published in and out of China), and scientific reports. As noted, they will

choose one environmental issue, provide an accurate analysis of the positive benefits and/or negative consequences for multiple stakeholders, and then in a persuasive essay propose a solution. Although the purpose of this unit is to prepare high school students to successfully complete the Washington State Social Studies CBA on Humans and the Environment, teachers from all disciplines wanting to explore this important global issue with their students can easily use this unit.

### **OBJECTIVES:**

Upon completion of this activity, students will be able to:

- Understand the impact of China's huge population, intense economic development, and rising energy consumption, on China and the global environment.
- Identify environmental challenges facing China today.
- Explore the multiple perspectives regarding this issue while looking at some of the stakeholders involved in these issues.
- Provide an accurate analysis of the positive benefits and/or negative consequences for multiple stakeholders' relationship to the environment of 21<sup>st</sup> century China.
- Propose and convey a reasonable solution to this issue by using valid and multiple resources (explicitly cite and accurately interpret these resources).

**TIME:** 1-2 weeks

## I. CHINA'S ENVIRONMENTAL CHALLENGE

### **STEP ONE: GETTING STARTED**

Find out what your students know about Chinese environmental issues by giving them a quick true and false quiz (**Handout #1.1 Test Your Knowledge of China's Environment**). This quiz could either be distributed individually or you could break the students into small groups of 2-4 students. While they will not be graded on this quiz, it should spur discussion and inspire them to ask questions and delve further. After they have taken the quiz, go over the correct answers with them. (All of the answers are true.) You may want to take some time in between each question to discuss:

- Have they heard about this issue? If so, how (through what type of source)?
- What surprised them the most?
- What would they like to know more about?

Although this short quiz contains minimal information, ask your students to begin thinking about these questions:

- Post-Mao economic reforms have improved general living standards. Discuss the costs. How has China's huge population, intense economic development, and rising energy consumption, affected its environment?

- What are some specific negative consequences?
- Can you think of any positive benefits?
- Ask students to brainstorm a list of China's environmental challenges: acid rain, groundwater shortages, polluted rivers and shores, health impacts, desertification, urbanization and decrease of arable land, air pollution, population issues, deforestation, soil erosion, dwindling wildlife, increasing energy and food prices, natural resource depletion, social unrest, global warming. (Remind them to note ones of interest.)
- What is the best way for them to begin their research? What type of resources should they look for?

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### **STEP TWO: EXAMINING DATA**

Pass out **Handout #1.2 The Environment of China Fact Sheet**. Since there is a lot of information on this extensive fact sheet, you may want to allow at least 20 minutes in class or ask the students to take this home to read. Ask each student to return to class prepared to share at least three specific comments which may include information that surprised, confused, or interested them.

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### **STEP THREE: MULTIPLE PERSPECTIVES**

Post-Mao economic reforms have improved general living standards – but they have also caused serious environmental damage. Most Chinese residents are aware of the environmental challenges facing their country. In fact some urbanites rarely see the sun and many citizens suffer from serious respiratory illnesses. In this exercise, students will explore multiple perspectives and points of view in order to understand the challenges and obstacles facing both the Chinese leadership and citizens. In all but one case, they will be using primary sources as they take on the roles of real people.

Explain to students that they will be taking on various roles as they participate in a mock “Future of the Environment Symposium” held in Beijing, the capital of China. (A symposium is a meeting held to discuss a particular subject where a number of people make presentations.) Participants (listed with surnames first) attending this “Future of the Environment Symposium” include:

1. Wen Jiabao, the Premier of China (**Handout #1.3A**)
2. Zhou Shengxian, the Minister of Environmental Protection (**Handout #1.3B**)
3. Liang Congjie, President of Friends of Nature, a Beijing-based environmental NGO (**Handout #1.3C**)
4. Chen Lifang, farmer and pollution victim (**Handout #1.3D**)
5. Xu Kezhu, Deputy Director of the Center for Legal Assistance to Pollution Victims (**Handout #1.3E**)
6. Wang Guoxia, local township leader (**Handout #1.3F**)
7. Tony Cheng, broadcast journalist (**Handout #1.3G**)
8. Hu Liren, Zhang Shuli, and Lin Qingnian Symposium leaders (**Handout #1.3H**)
9. Audience (**Handout #1.3I**)



### NOTE TO TEACHERS:

Energetic, self-directed students may want to create their own role through independent research. Additional roles could include: green entrepreneur, Chinese doctor dealing with pollution-caused diseases, corrupt industry manager, human rights activist, international environmental NGO representative. For excellent resources covering these and more topics, encourage your students to visit the World Affairs Council website: <http://www.world-affairs.org/globalclassroom/profdev/default.htm#packets>. (Select “The Green Olympics and After: China’s Environmental Challenge” from “Links to Descriptions: New in 2007-2008” and follow the link to access the PDF document.) Or, students could take on the role of reporters covering the symposium from China, U.S., India, and neighboring Asian countries (South Korea, Japan, Vietnam, Thailand, Laos, Cambodia, etc.).

This exercise is not set up as a debate. It is set up as a symposium to listen to different concerns and explore where various perspectives and views come together and where they diverge. It is a simple exercise to begin to illustrate some of the complexity that China faces balancing its current industrial revolution with the resulting environmental degradation. Teachers should feel free to use this information in any way they feel will be the most meaningful and educational.

If you have time, you may want to show the NOVA feature entitled “China Revs Up” (Part 2 of the World in Balance). This one-hour documentary explores China’s booming economy and its growing impact on the environment. Global Classroom at the World Affairs Council, Seattle has a loan copy (206-441-5910). It is also available through Seattle Public Library.

2. Explain to the students that there are six official symposium speakers (listed above as 1-6 or Handouts **#1.3A-F**), one independent environmental reporter (listed above as 7 (**Handout #1.3G**), and three symposium leaders (listed above as 8 or **Handout #1.3H**).

3. Select six students to play the roles of the Chinese symposium participants and hand out the designated material to them (**Handouts #1.3A-F**). Ask each student to choose his or her own speechwriter. Together these six pairs must prepare a 3-5 minute speech based on the information included in the role handouts. **Handouts #1.3A-F** include: official talking points from primary sources; additional points to consider; web resources in case they want to do additional research on their own; and speech preparation instructions. Each speech will highlight their character’s perspective on China’s environment. In addition they will need to prioritize three goals for China to pursue on its road to environmental sustainability in the 21<sup>st</sup> century. They will conclude their 3-5 minute speech by giving a convincing case for their three chosen priorities. Speeches will be given in the alphabetical order listed on the handouts.

4. Next, choose one student who will take on the role of Tony Cheng, an independent environmental reporter from Al-Jazeera (**Handout #1.3G**). This student will introduce a 2-3

minute TV report on the dilemma between the environment and the economy. (For example, China has recently closed its largest plastic bag factory, with 20,000 workers losing their jobs.)

5. Then select three students to be the symposium leaders, Hu Liren, Zhang Shuli, and Lin Qingnian. All three will need to read in advance the roles of the other participants (**Handouts #1.3A-G**). Hu will need to prepare the welcoming remarks and introduce each speaker. Zhang will be in charge of the Q & A; calling on the audience and intermingling her/his own questions. Lin will make the concluding remarks and highlight any common threads. Each role-playing handout includes instructions.

6. The rest of the class (outside of these 15 designated roles) would be the audience (listed above as 9 or **Handout #1.3I**). While the symposium participants (student role players) are working on their speeches, ask the rest of the students to choose at least one of the articles (accessed by the web) listed on this handout. These articles will give them some background information about the environmental challenges facing China. Encourage them to start formulating questions. Their role as the audience is to listen to the symposium speakers and ask questions. After listening to the speakers and asking questions, they could be asked to do short timed writing on who presented the most convincing case for their three chosen priorities.

7. Optional: other role options (as mentioned in the notes) include designating students as reporters from China and the U.S. and neighboring Asian countries. The students would need to do some preliminary research in order to ask relevant questions. For example, if you are a country downstream on the Mekong River (Thailand, Laos, Cambodia, Vietnam) what does it mean for the livelihood of your citizens when China builds a series of dams upstream on the Mekong? Other self-directed students may want to take on one of these roles: green entrepreneur, international environmental NGO representative, Chinese doctor dealing with pollution-caused diseases, corrupt industry manager.

8. Now it is time to get started. Again the hope is that students will explore multiple perspectives and points of view in order to understand some of the challenges and obstacles facing Chinese leadership and citizens. This entire session would work well as a 90-minute block period; otherwise it could be divided into two class periods. The agenda is listed below.

## FUTURE OF THE ENVIRONMENT SYMPOSIUM BEIJING, CHINA

- Welcome by Symposium Organizer Hu Liren
- Introduction of Chinese Premier Wen Jiabao by Hu (Hu will also introduce all of the symposium speakers)
- Brief speech by Wen Jiabao, the Premier of China
- Brief speech by Zhou Shengxian, the Minister of Environmental Protection
- Brief speech by Liang Congjie, President of Friends of Nature, a Beijing-based environmental NGO
- Brief speech by Chen Lifang, farmer and pollution victim
- Brief speech by Xu Kezhu, Deputy Director of the Center for Legal Assistance to Pollution Victims
- Brief speech by Wang Guoxia, local township leader
- Brief background and then showing of short TV news story on the closing of China's largest plastic bag factory by Tony Cheng, Independent Environmental Reporter
- Symposium Organizer Zhang Shuli will begin the Q & A and field questions from the audience
- Concluding remarks by Symposium Organizer Lin Qingnian
- Optional short timed-writing assignment for audience or entire class

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## II. CHOOSING AN ENVIRONMENTAL ISSUE: WRITING YOUR CBA

### STEP ONE: BRAINSTORMING

Now it is time for students to sift through what they have learned regarding environmental challenges facing China today. They need to choose one environmental issue, provide an accurate analysis of the positive benefits and/or negative consequences for multiple stakeholders, and then propose a solution. (While this curriculum includes background information about current environmental issues, this CBA does allow students to propose a reasonable solution to a contemporary problem OR analyze a historical situation and propose a reasonable alternative in terms of what would have improved the health of the system.)

### **Optional:**

Depending on time, you may want to discuss a few of the following thoughts and questions.

### **Summary Questions and Thoughts:**

- China's number one challenge is the conflict between protecting the environment and short-term economic growth.
- China's environmental movement, though young, is growing, and while it is not always encouraged, it is at least tolerated by the government. Friends of Nature (FON) is just the first of more than three thousand green non-governmental organizations (NGOs) that

have emerged – the largest grouping of China's rising civil society.

- Discuss how environmental degradation is a huge drain on the Chinese economy. At what point do you think that China will reach the tipping point of making green GDP more important than traditional GDP?
- Discuss how corruption at local and state levels poses a challenge to China's sustainability efforts.
- Discuss the following quote from the Center for Legal Assistance to Pollution Victims: "China has had environmental laws on the books for thirty years, but teaching citizens to use them is a relatively new enterprise. So, too, is the expectation that laws should be enforced. Local environmental officials have surprisingly limited authority to implement Beijing's green regulations, as these cadres receive both their orders and their salaries from local government, which has an economic interest in shielding local industry" (<http://www.clapv.org/new/en/>).
- As China's economy becomes increasingly decentralized, how can the Chinese government get the local leaders and entrepreneurs – who are benefiting from economic reform and massive economic growth – to follow the new environmental directives? How can the Chinese government get local leaders in poorer areas and provinces – who are struggling to employ rural and urban residents – to see the benefits of investing in green enterprises when they lack funding and other assistance?
- In what ways can NGOs like Friends of Nature and Center for Legal Assistance to Pollution Victims support China's central government as it attempts to strictly enforce environmental regulations? In what ways can China's growing number of Internet users (230 million plus) play a part?
- Discuss how "public disturbances" reflect the growing public awareness of environmental problems and also reveal the rising consciousness of legal rights across China.
- Often it is the ordinary people – the fishermen and farmers – who lose their livelihood and health. The pollution often destroys their rivers and land. They receive no benefits from encroaching factories. The wealth goes to the leaders and businesspeople and the villagers are left with a destroyed livelihood and often destroyed land. Discuss the problem of development overwhelming daily life.
- China has become a world industrial power – and consequently a planet polluter. Discuss its environmental impact on its neighbors and the rest of the world. As it becomes more integrated into the world community, discuss how it could positively impact its relationships around the world.
- Who's right? The U.S. thinks that China as a late developing country should learn from the mistakes of others and be environmentally responsible now. China argues that over half its people are still poor and it's not fair to ask them to give up the benefits of wealth now in order to clean up the planet while Americans still create more pollution, use more energy, and emit more greenhouse gases per capita than Chinese.
- Do you agree that China has just as much right to exploit resources and grow its economy like the U.S. and other developed countries? (Studies have found that with the finite

resources in the world and with China's huge population – A U.S.-type lifestyle would be impossible.)

- How can we weigh individuals' rights versus the common good, when proposing solutions to environmental issues?

### **STEP TWO: CHOOSING A TOPIC**

By now there should be a long list of ideas collected on the chart paper or individually by students. Below is a list of websites to get them started. For many other excellent up-to-date resources encourage your students to visit the Resource Packets page on the World Affairs Council website: <http://www.world-affairs.org/globalclassroom/resourcepackets.htm> (click on "The Green Olympics and After: China's Environmental Challenge").

### **HIGHLY RECOMMENDED RESOURCES**

(Also recommended as background reading for the "audience" attending the symposium):

- Choking on Growth: "As China Roars, Pollution Reaches Deadly Extremes" (8/25/07 *New York Times*)  
[http://www.nytimes.com/2007/08/26/world/asia/26china.html?\\_r=1&oref=slogin](http://www.nytimes.com/2007/08/26/world/asia/26china.html?_r=1&oref=slogin)
- "The Great Leap Backward?" (*Foreign Affairs*, Sept/Oct 2007)  
<http://www.foreignaffairs.org/20070901faessay86503/elizabeth-c-economy/the-great-leap-backward.html>
- "A Large Black Cloud" (*The Economist*, 3/13/08)  
[http://www.economist.com/surveys/PrinterFriendly.cfm?story\\_id=10795813](http://www.economist.com/surveys/PrinterFriendly.cfm?story_id=10795813)
- "China's Environment in a Globalizing World" (*Nature*, June 2005)  
[http://www.csis.msu.edu/Publication%20files/China\\_Environment\\_Globalization.pdf](http://www.csis.msu.edu/Publication%20files/China_Environment_Globalization.pdf)
- "China's Green Beat" (blogs/podcasts on environmental issues in China by U.S. students living in China)  
<http://chinasgreenbeat.com/blog/>

### **Industrial Pollution**

- Choking on Growth: "Trucks Power China's Economy, at a Suffocating Cost"  
<http://www.nytimes.com/2007/12/08/world/asia/08trucks.html>
- Spiegel Online International (link from CFR): "China's Poison for the Planet"  
<http://www.spiegel.de/international/spiegel/0,1518,461828,00.html>

### **Water Pollution**

- Choking on Growth: "In China, Farming Fish in Toxic Waters" (*New York Times*)  
[http://www.nytimes.com/2007/12/15/world/asia/15fish.html?\\_r=1&oref=slogin](http://www.nytimes.com/2007/12/15/world/asia/15fish.html?_r=1&oref=slogin)
- Perilous Tide: An Inside Look at China's Massive Water Crisis  
Struggling to Save the Industrialized Pearl River (*Caijing Magazine*)  
<http://www.caijing.com.cn/english/res/2007-12-20/42457.shtml>

### Pollution from Coal

- Choking on Growth: "Pollution From Chinese Coal Casts a Global Shadow" (*New York Times*)  
[http://www.nytimes.com/2006/06/11/business/worldbusiness/11chinacoal.html?\\_r=1&coref=slogin](http://www.nytimes.com/2006/06/11/business/worldbusiness/11chinacoal.html?_r=1&coref=slogin)

### Deforestation

- "China's Deforestation No Longer Driven Mainly By Poverty" (WorldWatch Institute)  
<http://www.worldwatch.org/node/4492>
- "A Country With No Big Trees" (WorldWatch Institute)  
<http://www.worldwatch.org/node/5313>
- "Alternative Energy: Protecting Forests in China's Yunnan Province" (The Nature Conservancy)  
<http://www.nature.org/wherewework/asiapacific/china/strategies/art13329.html>

### Wildlife

- Choking on Growth: "China's Turtles, Emblems of a Crisis" (*New York Times*)  
[http://www.nytimes.com/2007/12/05/world/asia/05turtle.html?\\_r=1&coref=slogin](http://www.nytimes.com/2007/12/05/world/asia/05turtle.html?_r=1&coref=slogin)
- "Taming the Tiger Trade: China's Market for Wild and Captive Tiger Products Since the 1993 Domestic Trade Ban" (SaveTheTigerFund.org)  
<http://www.savethetigerfund.org/AM/Template.cfm?Section=Search1&template=/CM/ContentDisplay.cfm&ContentFileID=2469>
- "Participatory Development: Chinese Environmental Group Works to Protect Species by Empowering Local People" (WorldWatch Institute)  
<http://www.worldwatch.org/node/5304>

### Nature Conservation

- The Nature Conservancy: China  
<http://www.nature.org/wherewework/asiapacific/china/>
- "Tibetan Sacred Lands: A Values-Based Approach to Conservation" (WorldWatch Institute)  
<http://www.worldwatch.org/node/5333>

### Arable Land Loss

- "Shrinking Arable Lands Jeopardizing China's Food Security" (WorldWatch Institute)  
<http://www.worldwatch.org/node/3912>
- "Food Security Fears as China's Farmland Shrinks" (*Asia Times*)  
[http://www.atimes.com/atimes/China\\_Business/IE17Cb02.html](http://www.atimes.com/atimes/China_Business/IE17Cb02.html)
- "China Urges Further Protection of Arable Land" (*China Daily*)  
[http://www.chinadaily.com.cn/english/doc/2004-03/23/content\\_317346.htm](http://www.chinadaily.com.cn/english/doc/2004-03/23/content_317346.htm)

### Green Enterprise

- "China Builds a Bright Green Metropolis" (*Wired Magazine*)  
[http://www.wired.com/wired/archive/15.05/feat\\_popup.html](http://www.wired.com/wired/archive/15.05/feat_popup.html)

- “Industrial and Rural Energy in China – Innovative Private-Sector Initiatives Lead the Way” (UN Chronicle Online)  
<http://www.un.org/Pubs/chronicle/2007/issue2/0207p61.htm>
- “Three “Garbage Crusaders” in Modern Cosmopolitan Beijing” (WorldWatch Institute)  
<http://www.worldwatch.org/node/5435>

### Non-green Enterprises

- “Shangba, China's Village of Death” (Sprol)  
<http://www.sprol.com/?p=371>
- “Rules Ignored, Toxic Sludge Sinks Chinese Village” (*New York Times*)  
<http://www.nytimes.com/2006/09/04/world/asia/04pollution.html?pagewanted=print>

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### **STEP THREE: USING THE HUMANS AND THE ENVIRONMENT GRAPHIC ORGANIZER**

Distribute a copy of **Handout #1.4A Humans and the Environment Graphic Organizer**. If students are having difficulties getting started, you may want to work as a group on the issue that was discussed in the short TV report. See **Handout #1.4B Humans and the Environment Graphic Organizer – Sample**. Using the “Plastic bag pollution” as an issue, you can walk them through this semi-completed graphic organizer.

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### **STEP FOUR: INDEPENDENT RESEARCH**

Here you may incorporate whichever research methods your school/district teaches (Big Six, QUEST, etc.). Your school librarian may be able to support you and your students in this section.

- Students who have chosen similar topics could work in small groups to develop an annotated bibliography of articles, websites, graphs, photos, and statistics related to their topics. (You may want to provide them with a sample annotated bibliography.) If they are interested in looking at more resources than the ones provided here, encourage your students to visit the World Affairs Council website: <http://www.world-affairs.org/globalclassroom/profdev/default.htm#packets>. Select “The Green Olympics and After: China’s Environmental Challenge” from “Links to Descriptions: New in 2007-2008:” and follow the first link to access the PDF document.
- If students are independently finding their own resources, remind them to consider the reliability of the sources they are consulting. Review criteria for evaluating websites. The following site from Valparaiso University provides a helpful list of criteria (note particularly the second on “purpose/point of view”) as well as links to more information on analyzing websites. <http://www.valpo.edu/library/user/evaluation.html#criteria>
- In the middle of the research process, allow some time for groups to share some of their relevant and best resources with other groups, to ensure that every group will be successful in finding relevant documents.

- Remind students to make notes in the graphic organizer (**Handout #1.4A**).

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### **STEP FIVE: ANALYSIS**

- Students work independently or in their groups to analyze the information they have found and complete the graphic organizer. Students should be encouraged to completely fill out the graphic organizer provided by OSPI. This will ensure successful completion of tasks and sub-tasks required in the CBA.
- Some students may discover that they lack information for one piece or another. You might allow more time in class for research or ask students to do this for homework.
- You could ask students to share sources that contain the most relevant information and are easy to understand. What sources do you think are the most reliable? Compare and contrast the multiple sources that you have used.
- What would be the most effective way to compile your research and propose a reasonable local, regional, countrywide, or global solution based on at least three pieces of evidence?

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### **STEP SIX: CULMINATION**

Students should begin their individual writing work. **Distribute Handout #1.5 Humans and the Environment Rubric.** The students have a number of options.

- One option is to write a persuasive paper in which they provide accurate analysis of the positive benefits and/or negative consequences for multiple stakeholders' uses of the environment related to a contemporary issue OR a historical situation. *For a contemporary issue*, they must propose a reasonable solution to the issue in terms of improving the health of the system. *For a historical situation*, they are required to analyze the historical situation in terms of the environment and propose a reasonable alternative in terms of what would have improved the health of the system. *For either*, it is important that they cite, restate, paraphrase, and interpret relevant information from specific sources.
- The persuasive paper can take the form of a traditional report or students could write an article, essay, blog, or editorial. In addition, they may be motivated to start a petition or campaign in their school or community, start their own business, or perhaps design a green school or home.\*
- Another option is to do an oral presentation (e.g., PowerPoint, theater, speech, video, multi-media presentation, etc.).\*
- Students could organize a mock International Global Warming Conference. They could change their persuasive essay into a persuasive speech! \*

\* Note: Whatever option they choose, they will also need to put their findings in written form (e.g., written report, article, essay, editorial, etc.)



## HANDOUT #1.1 Test Your Knowledge of China's Environment

My name is \_\_\_\_\_

1. \_\_\_\_\_ China's spectacular economic growth has caused significant environmental degradation.
2. \_\_\_\_\_ Environmental pollution in the forms of greenhouse gas emissions, sulfur dioxide levels, and particulate matter concentrations has increased to life-threatening levels.
3. \_\_\_\_\_ Respiratory diseases linked to air pollution are the leading causes of death in China.
4. \_\_\_\_\_ Of the world's 20 most polluted cities, 16 are in China.
5. \_\_\_\_\_ China is the world's fastest growing auto market.
6. \_\_\_\_\_ As a way to control automobile growth and congestion on Shanghai highways, the cost of a Shanghai license plate is equivalent to about \$6000 US.
7. \_\_\_\_\_ Between 1994 and 1999, China's Gobi Desert expanded by more than 20,000 square miles, moving within 150 miles of Beijing, reducing ground water supplies and causing brutal dust storms that often spread over much of Asia.
8. \_\_\_\_\_ China is undertaking a mammoth (\$60 billion) water diversion project that will transport water from the southern part of the country to counteract a water shortage in the north.
9. \_\_\_\_\_ Due to government concern over China's serious environmental challenges, the State Environmental Protection Agency (SEPA) has just been designated a super-ministry.
10. \_\_\_\_\_ China has a huge wind energy resource – The wind resource in Inner Mongolia alone is thought to be sufficient for most of the power needs of Beijing and the rest of northern China.

### Special Credit

11. \_\_\_\_\_ The good news: China is one of the world's largest producers of compact fluorescent lights, solar cells, and energy-efficient windows. The bad news: most of these are exported.
12. \_\_\_\_\_ China has recently banned the free handout of plastic bags.
13. \_\_\_\_\_ Environmentalism is one of the few fields in which social activism is tolerated in China and college students are often at the forefront.



HANDOUT #1.2 THE ENVIRONMENT OF CHINA FACT SHEET

	CHINA	UNITED STATES
<b>Land area</b>	9,326,410 sq km	9,161,923 sq km
<b>Population</b>	1.3 billion	299.0 million
<b>Life expectancy at birth</b>	71.8 years	77.7 years
<b>Literacy rate of peoples ages 15+</b>	90.9 %	99%
<b>GDP (purchasing power parity)</b>	\$7.043 trillion	13.86 trillion
<b>GDP real growth rate</b>	11.4%	2.2%
<b>GDP per capita (PPP)</b>	\$5,300	\$46,000
<b>GDP composition by sector</b>	Agriculture: 11%; industry (including construction): 49.5%; services: 39.5%	Agriculture: 0.9%; industry: 20.6%; services: 78.5%
<b>Labor force</b>	803.3 million	153.1 million (including unemployed)
<b>Labor force by occupation</b>	Agric: 43%; industry: 25%; services 32%	Farming, forestry, and fishing 0.6%, manufacturing, extraction, transportation, and crafts 22.6%, managerial, professional, and technical 35.5%, sales and office 24.8%, other services 16.5%
<b>Agricultural products</b>	Rice, wheat, potatoes, corn, peanuts, tea, millet, barley, apples, cotton, oilseed, pork, fish	Wheat, corn, other grains, fruits, vegetables, cotton; beef, pork, poultry, dairy products; fish; forest products
<b>Industries</b>	Mining and ore processing, iron, steel, aluminum, and other metals, coal; machine building; armaments; textiles and apparel; petroleum; cement; chemicals; fertilizers; consumer products, including footwear, toys, and electronics; food processing; transportation equipment, including automobiles, rail cars and locomotives, ships, and aircraft; telecommunications equipment, commercial space launch vehicles, satellites	Highly diversified and technologically advanced; petroleum, steel, motor vehicles, aerospace, telecommunications, chemicals, electronics, food processing, consumer goods, lumber, mining
<b>Oil production</b>	3.71 million bbl/day	8.322 million bbl/day
<b>Oil consumption</b>	7 million bbl/day	20.8 million bbl/day
<b>Natural resources</b>	Coal, iron ore, petroleum, natural gas, mercury, tin, tungsten, antimony, manganese, molybdenum, vanadium, magnetite, aluminum, lead, zinc, uranium, hydropower potential (world's largest)	Coal, copper, lead, molybdenum, phosphates, uranium, bauxite, gold, iron, mercury, nickel, potash, silver, tungsten, zinc, petroleum, natural gas, timber

## HUMANS AND THE ENVIRONMENT: CHINA'S ENVIRONMENTAL CHALLENGE

	CHINA	UNITED STATES
<b>Exports</b>	\$1.221 trillion f.o.b. machinery, electrical products, data processing equipment, apparel, textile, steel, mobile phones	\$1.14 trillion f.o.b. agricultural products (soybeans, fruit, corn) 9.2%, industrial supplies (organic chemicals) 26.8%, capital goods (transistors, aircraft, motor vehicle parts, computers, telecommunications equipment) 49.0%, consumer goods (automobiles, medicines) 15.0%
<b>Imports</b>	\$917.4 billion f.o.b. machinery and equipment, oil and mineral fuels, plastics, LED screens, data processing equipment, optical and medical equipment, organic chemicals, steel, copper	\$1.987 trillion f.o.b. agricultural products 4.9%, industrial supplies 32.9% (crude oil 8.2%), capital goods 30.4% (computers, telecommunications equipment, motor vehicle parts, office machines, electric power machinery), consumer goods 31.8% (automobiles, clothing, medicines, furniture, toys)
<b>Internet users</b>	230 million	208 million

### Environmental Issues and Agreements

	CHINA	UNITED STATES
<b>Chief Environmental Concerns</b>	Air pollution (greenhouse gases, sulfur dioxide particulates) from reliance on coal produces acid rain; water shortages, particularly in the north; water pollution from untreated wastes; deforestation; estimated loss of one-fifth of agricultural land since 1949 to soil erosion and economic development; desertification; trade in endangered species	Air pollution resulting in acid rain in both the U.S. and Canada; the U.S. is the largest single emitter of carbon dioxide from the burning of fossil fuels; water pollution from runoff of pesticides and fertilizers; limited natural fresh water resources in much of the western part of the country require careful management; desertification
<b>International Environmental Agreements</b>	<i>Party to:</i> Antarctic-Environmental Protocol, Antarctic Treaty, Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Marine Dumping, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, Tropical Timber 94, Wetlands, Whaling <i>Signed, but not ratified:</i> none of the selected agreements	<i>Party to:</i> Air Pollution, Air Pollution-Nitrogen Oxides, Antarctic-Environmental Protocol, Antarctic-Marine Living Resources, Antarctic Seals, Antarctic Treaty, Climate Change, Desertification, Endangered Species, Environmental Modification, Marine Dumping, Marine Life Conservation, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, Tropical Timber 94, Wetlands, Whaling <i>Signed, but not ratified:</i> Air Pollution-Persistent Organic Pollutants, Air Pollution-Volatile Organic Compounds, Biodiversity, Climate Change-Kyoto Protocol, Hazardous Wastes

**HANDOUT #1.2 THE ENVIRONMENT OF CHINA FACT SHEET cont'd**  
**Environmental Indicators**

	CHINA	UNITED STATES
Urban population (% of total)	40.4	80.8
Land area (sq. km) (thousands)	9326	9162
Arable land (% of land area)	14.86	18.01
Irrigated land (% of cropland)	47.2	12.5
Forest area (% of land area)	21.2	33.1
Annual deforestation (% of change)	-1.7	-0.1
Nationally protected areas (% of total land area)	11.8	16.3
Mammal species, total known	580	468
Mammal species, threatened	80	40
Bird species, total known	1221	888
Bird species, threatened	82	71
Electric Power Consumption (kWh per capita)	1585	13351
Electricity production from coal sources (% of total)	77.9	50.4
CO2 emissions (kg per 2000 PPP \$ of GDP) <sup>1</sup>	0.6	0.6
CO2 emissions (metric tons per capita)	3.2	19.9
PM10, country level (micrograms per cubic meter) <sup>2</sup>	72	23
Passenger cars (per 1000 people)	10	465
Renewable internal freshwater resources per capita (cubic meters)	2156	9446
Annual freshwater withdrawals, total (% of internal resources)	22	17
Annual freshwater withdrawals, agriculture (% of total freshwater withdrawal)	68	41
Improved water source (% of population with access)	77	100
Improved water source, rural (% of rural population with access)	67	100
Improved water source, urban (% of urban population with access)	93	100
Improved sanitation facilities (% of population with access)	44	100
Improved sanitation facilities, rural (% of rural population with access)	28	100
Improved sanitation facilities, urban (% of urban population with access)	69	100

Sources: The World Bank – <http://www.worldbank.org>,  
 CIA World Factbook – <https://www.cia.gov/library/publications/the-world-factbook/>

**Notes:**

1. Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring.
2. Particulate matter concentrations refer to fine suspended particulates less than 10 microns in diameter (PM10) that are capable of penetrating deep into the respiratory tract and causing significant health damage. Data for countries and aggregates for regions and income groups are urban-population weighted PM10 levels in residential areas of cities with more than 100,000 residents. The estimates represent the average annual exposure level of the average urban resident to outdoor particulate matter. The state of a country's technology and pollution controls is an important determinant of particulate matter concentrations.



### HANDOUT #1.3A YOU ARE WEN JIABAO, THE PREMIER OF CHINA

*Although you are not accountable at the “ballot box” you certainly feel the weight of dealing with and balancing domestic concerns: corruption, economic inequalities, inflation, health and education costs, social unrest, energy-supply demands, ethnic relations, and a host of environmental troubles. You have been asked to kick off this symposium by discussing your long-range plans for making China a healthier place to live. Although you are a busy man, you have decided to stay and listen to a diverse group of Chinese citizens discuss their thoughts on the environment. While this is rather unprecedented, you are willing to give this “big democracy” idea a try. (In fact during the National People’s Congress that took place in Beijing in March 2008 you invited citizens from all across China to write you about their concerns and challenges via the NPC website. You were struck by the number of people who voiced their concerns about environmental issues.)*

### YOUR OFFICIAL TALKING POINTS

- Environmental protection has been a basic national policy since the 1980s. The State Environmental Protection Committee was established in 1984 and the first Environmental Protection Law formally issued in 1989. After the United Nations Conference on Environment and Development in 1992, China was one of the first countries to formulate and carry out a strategy of sustainable development.
- Responding to stresses on natural resources caused by fast economic growth, development, and urbanization, the Chinese government has responded with a "green strategy" that includes developing a revolving economy (increasing resource-use efficiency); developing clean production (reducing pollution cost in production processes); developing green consumption (reducing ecological impact of consumption); developing new energy resources (reforming production methods); moving toward an ecological industrial civilization; and creating a balanced ecological environment.
- Still, China’s massive growth has swamped our efforts at counteracting the environmental damage that has ensued. The State’s goal now is to change environmental protection from a reactive “after-the-event management” to a proactive “whole-process supervision and control.” The Cleaner Production Promotion Law and the Environment Impact Assessment Law, which went into effect on January 1 and September 1, 2003 respectively, provide guarantees to implement this strategy. The former requires full control over all the production links – from production design, choice of energy resources and raw materials, technology, equipment maintenance, to waste recycling – so as to reduce pollution and promote resource recycling. The latter requires all authorities at city levels and above to make environmental impact assessments when making plans for land use, construction and development of districts, river basins and sea areas.
- China will face the severe challenge of environmental protection for a long time to come. Based on our commitment to environmental protection as of March 26, 2008, we have just elevated the State Environmental Protection Administration to a full-fledged ministry. The full membership in the State Council means a bigger say in government policy-making.

### THINGS TO CONSIDER

- While you are not accountable at the “ballot box,” you do feel pressure to balance environmental issues with social, political, and economic priorities. Some advisors say that you have to “ride the tiger” of explosive economic growth until the rate of unemployed workers slows down.
- You are aware of the severe environmental problems facing China. Yet, you realize that your efforts to temper economic growth, promote energy efficiency, and decrease China’s reliance on heavy industry have had little effect. Your goals are to protect China’s environment, yet the

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reality of immediately tackling air and water pollution by dismantling all polluting enterprises would result in spiraling unemployment and employer/employee discontent.

- You have supported local and provincial initiatives to launch capitalist endeavors; now you must grapple with reining them in and getting them to follow new, top-down environmental regulations.
- The economic development challenges facing you as the head of the Chinese government are: (a) to sustain adequate job growth for migrants, the tens of millions of workers laid off from state-owned enterprises, and new entrants to the work force; (b) to reduce corruption and other economic crimes; and (c) to contain environmental damage and social strife related to the economy's rapid transformation.
- Every year more and more protests and demonstrations occur over environmental issues. Some 60,000 pollution-related protests occurred in 2006. As long as the protests focus on isolated problems (pollutions spills, etc.) this is not a problem; the fear is if they begin to protest Communist Party rule.
- China is not alone in having to deal with the tension between industrial development/energy use and the health of the environment. All industrialized or industrializing nations experience this. Only after the US became a major industrial power did it begin to take environmental issues seriously. Even today there are U.S. industries that still do not comply with environmental regulations. Even the EPA is sued from time to time. How can China compete economically if they have to enforce stringent environmental restrictions immediately? You look forward to demonstrating to the world our commitment to environmental protection by hosting the 2008 Beijing Green Olympics.

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### WHAT YOU NEED TO DO

- Choose a speechwriter and work with him/her on preparing a 3-5 minute speech that gives an overview of Premier Wen Jiabao's perspectives. Note that the talking points listed above come straight from his speeches and/or the Chinese government website.
- Conclude your speech by prioritizing your three goals for China to pursue on its road to environmental sustainability in the 21<sup>st</sup> century. Your goal is to make a convincing case from Premier Wen's perspective.

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### RESOURCES

Biography of Wen Jiabao

[http://news.xinhuanet.com/english/2008-03/16/content\\_7799684.htm](http://news.xinhuanet.com/english/2008-03/16/content_7799684.htm)

Central Government Website

<http://english.gov.cn/chinatoday.htm>

Government White Paper on Environmental Protection (1996-2005)

<http://www.china.org.cn/english/MATERIAL/170257.htm>



## HANDOUT #1.3B YOU ARE ZHOU SHENGXIAN, HEAD OF THE MINISTRY OF ENVIRONMENTAL PROTECTION (MEP)

*Your agency has just been elevated to a top ministry level on March 26, 2008. Previously known as the State Environmental Protection Agency (SEPA), MEP is now one of the twenty-seven ministries and commissions in the State Cabinet. As the new Minister, your agenda this year includes a conference on pollution treatment in the Songhua River, and meetings to tackle pollution in the Huai River, agricultural pollution in Zhejiang province, and industrial pollution in Shanghai.*

### YOUR OFFICIAL TALKING POINTS

- MEP's mission is to "prevent and control environmental pollution, protect nature and ecology, supervise nuclear safety, safeguard public health and environmental safety, and promote the harmony between man and nature."
- Setting up a law enforcement system of "iron and steel" tops your agenda: The new ministry will have greater authority to crack down on environmental crime, and you will expand your enforcement and surveillance teams. Regular meetings and joint enforcement, surveillance and information sharing systems will be set up not only among environmental protection departments of all levels, but also with law enforcement and judicial bodies.

The following points were excerpted from a talk you delivered 1/23/08, at a two-day National Conference of Heads of Provincial-level Environmental Protection Bureaus. \*

- At present, we should focus on the following tasks: first of all, we should speed up establishing the three major systems (a scientific indicator system, an accurate monitoring system and a strict assessment system) for pollution reduction, and by the methods approved and forwarded by the State Council for calculating, monitoring, and assessing the total amount of reduced major pollutants, earnestly and entirely promote the establishment of the three systems, constantly summarize the practical experience and improve the governance methods.
- Second, we should initiate the work to guarantee the water quality in drinking water sources. Local areas should pay close attention to grasping the protection of drinking water sources in major cities within the provincial jurisdiction, make and implement feasible work plans, carry out the policies and measures for rehabilitating the rivers, lakes, and seas, intensify the supervision of law enforcement, and severely crack down on various environmental irregularities that endanger the safety of drinking water sources in order to enable the public have access to clean water.
- Third, we should mobilize all the resources to conduct the surveys on pollutant sources. With collective resources we should make studies while conducting the surveys, and explore a set of dynamic mechanisms for managing the information on pollutant sources, in order to lay a solid foundation for effective management.
- Fourth, we should carry out more training programs and try to enhance the professional ability and law enforcement level of workers in the environmental system.

### THINGS TO CONSIDER

- As head of SEPA, you were frustrated by your inability to monitor environmental quality and standards across China because of a lack of personnel. Also, standards and measures of monitoring have not been updated. In addition, work related to people's health has been neglected. You hope that with your new Ministerial post that you will be able to concentrate on these issues. You hope the State Government will support you in your "iron and steel" enforcement and that they will begin tying the evaluation of local leaders to environmental targets.
- You have also been frustrated by shortage of money and power compared to other state agencies. For example, toxic algae in China's third largest lake (Taihu) caused one of the biggest

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environmental disasters of 2007. The contaminants included emissions from crab farms and small factories lining the shore. Your hands were tied: the farms fell under the Ministry of Agriculture, waste-water treatment plants under local governments, and Taihu Lake under the Ministry of Water Resources. Your budget for the next Five Year Plan (2006-2010) has been increased by 85% to 1.3 trillion yuan (\$180 billion); still you know much of that will go to the State Forestry Administration to deal with desertification.

- You have worked to encourage greener corporate behavior (encouraging state-owned banks to suspend lending to polluting industries, taxing polluting companies, etc.) but resistance from local government and state-owned companies makes this difficult.
- Finally, you are also proud of your accomplishments and aware of the long road ahead. You agreed with Pan Yue, your outspoken deputy minister of Environmental Protection, when he commented: “As for China’s impact on surrounding countries. I’m first to admit the problem. But let’s talk about this in the context of international fairness. Whose development model are we emulating? Who has been shifting all of its pollution-heavy factories to China? And who bears an even greater international responsibility than China – but has yet to shoulder it – on matters like greenhouse gas emissions?” \*\*

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### WHAT YOU NEED TO DO

- Choose a speechwriter and work with him/her on preparing a 3-5 minute speech that gives an overview of Minister Zhou Shengxian’s perspectives. Note that the talking points listed above come straight from his speeches and/or the MEP/SEPA websites.
- Conclude your speech by prioritizing your three goals for China to pursue on its road to environmental sustainability in the 21<sup>st</sup> century. Your goal is to make a convincing case from Minister Zhou’s perspective.

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### RESOURCES

\* National Conference of Heads of Provincial-level Environmental Protection Bureaus

[http://english.sepa.gov.cn/Ministers/Speeches/200802/t20080220\\_118373.htm](http://english.sepa.gov.cn/Ministers/Speeches/200802/t20080220_118373.htm)

Home page for the Ministry of Environmental Protection

<http://english.sepa.gov.cn/>

For a list of environmental achievements that you presented on 1/22/08

[http://english.sepa.gov.cn/Ministers/Speeches/200802/t20080219\\_118305.htm](http://english.sepa.gov.cn/Ministers/Speeches/200802/t20080219_118305.htm)

11-point Mandate of State Environmental Protection Administration

[http://english.sepa.gov.cn/About\\_SEPA/Mission/200707/t20070704\\_106099.htm](http://english.sepa.gov.cn/About_SEPA/Mission/200707/t20070704_106099.htm)

The National Eleventh Five-year Plan for Environmental Protection (2006-2010) – 50 pages. See part 4 for extensive 18 pages of “key areas and main tasks.”

[http://english.sepa.gov.cn/News\\_service/Photo/200803/t20080305\\_119009.htm](http://english.sepa.gov.cn/News_service/Photo/200803/t20080305_119009.htm)

Environmental Regulations and Standards Taking Effect as of March 1, 2008

[http://english.sepa.gov.cn/News\\_service/Photo/200803/t20080321\\_119502.htm](http://english.sepa.gov.cn/News_service/Photo/200803/t20080321_119502.htm)

“Don’t Drink the Water and Don’t Breathe the Air” *The Economist* 1/24/08

[http://www.economist.com/world/asia/PrinterFriendly.cfm?story\\_id=10566907](http://www.economist.com/world/asia/PrinterFriendly.cfm?story_id=10566907)

\*\* “The Last Empire: China’s Pollution Problem Goes Global” *Mother Jones* 12/10/07

<http://www.motherjones.com/news/feature/2008/01/the-last-empire>

## HANDOUT #1.3C YOU ARE LIANG CONGJIE, PRESIDENT OF FRIENDS OF NATURE

*Friends of Nature (FON) is a nonprofit, public welfare organization funded by membership fees and public support. You have a staff of 14 and a membership of 2000. Its mission is to promote environmental protection and sustainable development in China by raising environmental awareness and promoting a green culture among the public. You established the first official environmental NGO in China in 1994. This was not and still is not an easy task. You used your stature as a member of the People's Consultative Conference and influential friends. You are in your mid-70s now; your grandfather was the great Qing reformer Liang Qichao.*

### TALKING POINTS

- Friends of Nature (FON) is the oldest environmental non-government organization (NGO) in China and has played a pivotal role in promoting environmental awareness and protection in Beijing and throughout China as a whole. Officially registered in 1994 as the “Green Culture Institute of the International Academy of Chinese Culture” under the Ministry of Civil Affairs, FON has literally raised the environmental awareness of hundreds of thousands of Chinese students, citizens, and government officials. In particular, they have increased public understanding of endangered species such as the snub-nosed monkey and the Tibetan antelope in China's southwestern provinces. Not only has FON raised awareness of certain environmental issues both domestically and internationally, they have also successfully lobbied government officials to crack down on poaching these precious animals.
- As well as carrying out numerous environmental education and awareness campaigns, Friends of Nature has also helped establish numerous other grassroots environmental NGOs and university student groups around the country. These grassroots NGOs have often emerged when concerned citizens and students, having participated in FON workshops or seminars, realize that it is every individual and organization's responsibility to promote an environmentally sustainable society. Another pattern has been for individuals to work at FON for a few years in order to gain skills and knowledge before leaving to start their own NGO. Rather than seeing this as a loss, however, we see this as FON spreading the seeds of environmental consciousness. Over the last decade, these seeds have taken root in every province of China, as environmental NGOs and other civil society groups work towards the creation of an environmentally “Harmonious Society.”
- In February 2006, Friends of Nature compiled essays for and published *The Green Book of Environment: Crisis and Breakthrough of China's Environment* (2005), later arranging for its translation into English and subsequent publication in November 2006. *The Green Book* was the first annual report of China's environmental protection compiled by a non-governmental organization. Environmental activists, experts, scholars, and journalists contributed articles to *The Green Book*, making it the only book that reflects the views and observations of people working on the front line of environmental protection in China. The book covers 2005, the year of the Songhua River toxic spill crisis, the bird flu attacks, but also of a number of governmental and local initiatives to begin to tackle the increasing pressure on the environment.

### THINGS TO CONSIDER

- You support the National Eleventh Five-year Plan for Environmental Protection, which states: widespread increase of public environmental awareness is a driving force for environmental protection.
- Chinese NGOs are different than those in the U.S. They do not mobilize people to confront the government. The role of FON is to raise public awareness and to point out to the central government where local government actions violate official policy and thereby help strengthen the effectiveness of the environmental policy of the central government.

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- Liang said that raising public environmental awareness through the media and education are the two most appropriate long-term environmental strategies for protecting the Chinese environment. The Chinese media has been a great ally in raising the consciousness of Chinese people about the environment. Opinion polls often cite unemployment, official corruption, and the environment as three of the main concerns of Chinese people.
  - The Internet has fueled environmental activism. Today there are 230 million Internet users. Cyberspace allowed the environmental messages from international groups like Greenpeace and the World Wildlife Fund to reach the Chinese public at large.
  - Liang and four other environmentalists were given the Figures of Green China in 2005 award, the first awards for environmentalists sponsored by the central government and supported by the United Nations Environmental Program.
  - It is not easy to set up a domestic environmental NGO in China. One must jump through numerous bureaucratic hoops. Because of this there are probably more “illegal” or unregistered environmental NGOs than there are registered ones. Many Chinese NGOs are actually government-organized non-governmental organizations (GONGOS).
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### WHAT YOU NEED TO DO

- Choose a speechwriter and work with him/her on preparing a 3-5 minute speech that gives an overview of Liang Congjie/FON's perspectives. Note that the talking points listed above come straight from his speeches and/or the FON websites.
  - Conclude your speech by prioritizing your three goals for China to pursue on its road to environmental sustainability in the 21<sup>st</sup> century. Your goal is to make a convincing case from Liang Congjie's perspective.
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### RESOURCES

Friends of Nature website/English

<http://www.fon.org.cn/channal.php?cid=616>

“Liang Congjie: The Soul of China's Environmental NGOs”

<http://french.china.org.cn/english/MATERIAL/158625.htm>

Directory of International NGOs working on Environmental Issues in China

<http://www.chinadevelopmentbrief.com/dingo/Sector/Environment/2-12-0.html>

## HANDOUT #1.3D YOU ARE CHEN LIFANG, FARMER AND POLLUTION VICTIM

*You are a forty-seven-year-old farmer named Chen Li Fang. With your husband, you grow rice and raise pigs, chickens, and ducks in the village of Shutangshan, in northeastern Hunan. Your talking points below have been excerpted directly from an article written by Christina Larson in The Washington Monthly (1/8/08). Her article was also posted on the Beijing-based Center for Legal Assistance to Pollution Victims. She traveled to China as an International Reporting Project Fellow (sponsored by Johns Hopkins University).*

### TALKING POINTS

- In 2001, a chemical processing plant opened less than a mile from your farm. The owner of the factory had first considered locating in a neighboring town, but the local government badly wanted to attract both the jobs and tax revenue. According to *China Economic Times*, it offered the owner of the Hunan Jingtian Science and Technology Company generous financial incentives to open its plant there.
- By 2003, you and other villagers had compiled a troubling list of problems that had materialized since the factory opened. Dozens of people reported stomach pains, migraine headaches, and vomiting. Local media reported ten new cases of cancer among people who lived within a mile and a half of the factory – an alarming number for a village of only a few hundred people.
- Farmers watched their cattle die and rice yields decline. You and other villagers believed that wastewater discharged from the factory had poisoned the Xiang River, a source for drinking water and irrigation, and that the dark smoke rising from the plant's chimney had fouled the air. (The factory owner insisted to the local press that while his plant had pollution problems, the villagers' ailments could not be traced conclusively to its emissions.)
- Groups of villagers visited the factory repeatedly to talk to the management, requesting that the emissions-control equipment be upgraded or the most polluting production lines be discontinued. The owner offered small payments to those who complained loudest – enough to temporarily placate poor farmers, if not enough to cover their losses. Gradually, even those who were initially satisfied with their compensation demanded that the factory close. They also petitioned the environmental protection bureaus of Wangcheng County, where the factory is located, and nearby Changsha City, but officials approved the factory to continue operations.
- Having exhausted peaceful channels, the villagers turned to force. Twice in the summer of 2004, more than a hundred residents marched onto factory grounds to disconnect its electricity. You organized this second effort. The factory was shut down for three days before the equipment could be replaced. You served a short jail term.
- Undeterred, you traveled to Beijing in January 2006 for the first time. You camped for two weeks in a train station's waiting room as you struggled to get an audience with the national environmental ministry. Finally, you met with an official from the State Environmental Protection Administration, and were sent home with a letter directing the provincial government to examine your case. Nothing much changed.
- In November 2006 you returned to Beijing and met with an organization of public-interest lawyers, the Center for Legal Assistance to Pollution Victims. Founded in 1998, the center is staffed by volunteers – mostly law professors and young law students – and operates a free legal advice hotline. You have asked them to help you fight this case.

### THINGS TO CONSIDER

- You have decided to try to use the law to close the polluting factory down. If the government does not act, you will go to Beijing again. You are one of millions who have taken to the streets to protest environmental degradation. According to official government statistics, in 2005 there were more than 51,000 “public disturbances” of a hundred or more people protesting the con-

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tamination of rivers and farms. In 2006 more than 60,000 pollution-related disturbances were recorded. Based on increasing protests, the Ministry of Public Security has ranked pollution among the top five threats to China's peace and stability.

- Some environmental activists are serving time in jail right now. Wu Lihong,\* became well known around China for seeking to prevent chemical companies from dumping waste in Lake Tai. (Now the government has promised to invest billions to clean up the lake he fought for years to protect.)
- Although you are frustrated with the trips you have made to Beijing, you are somewhat heartened by the official evaluation in March 2008 that publicly recognizes the weaknesses in the system: *"There is no breakthrough in some in-depth environmental issues that should have been addressed during the '10th Five-Year Plan' period. There is no fundamental change in the inappropriate industrial structure and extensive economic growth mode. There are also such problems as environmental protection lagging behind economic growth, poor or inflexible mechanism, insufficient input and capacity. The phenomena of no strict observation of laws, little punishment to lawbreakers, poor law enforcement and supervision are still very common."*
- As a poor villager, you support China as it moves forward in its modernization process, but the burdens of development should not fall excessively on the poor. It seems like environmental law merely means that citizens have the right to report violations to authorities.

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### WHAT YOU NEED TO DO

- Choose a speechwriter and work with him/her on preparing a 3-5 minute speech that gives an overview of Chen Lifang's perspectives. Note that the talking points listed above come straight from Christina Larson's report.
- Conclude your speech by prioritizing your three goals for China to pursue on its road to environmental sustainability in the 21<sup>st</sup> century. Your goal is to make a convincing case from Chen's perspective.

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### RESOURCES

China's Pollution Revolution" by Christina Larson in *The Washington Monthly* 1/8/08

<http://www.alternet.org/story/72995/>

This article is also posted on Center for Legal Assistance to Pollution Victims site

[http://www.clapv.org/new/show\\_en.php?id=80&catename=MR](http://www.clapv.org/new/show_en.php?id=80&catename=MR)

\*Wu Lihong; In China, a lake's Champion Imperils Himself (article & video)

[http://www.nytimes.com/2007/10/14/world/asia/14china.html?\\_r=1&ref=asia&oref=slogin](http://www.nytimes.com/2007/10/14/world/asia/14china.html?_r=1&ref=asia&oref=slogin)

[http://www.nytimes.com/interactive/2007/10/14/world/asia/choking\\_on\\_growth\\_3.html#story3](http://www.nytimes.com/interactive/2007/10/14/world/asia/choking_on_growth_3.html#story3)

## HANDOUT #1.3E YOU ARE XU KEZHU, DEPUTY DIRECTOR OF THE CENTER FOR LEGAL ASSISTANCE TO POLLUTION VICTIMS (CLAPV)

*You are a professor at the China University of Political Science and Law and serve as the deputy director of the Beijing-based Center for Legal Assistance to Pollution Victims. CLAPV, founded by Wang Canfa in 1998, is a Chinese nongovernmental organization (NGO) based in Beijing, that actively assists in class action cases in almost every province. CLAPV is the only environmental litigation NGO in China, and its legal advocacy has successfully empowered pollution victims, providing an important check on Chinese industries that pollute indiscriminately. The center is managed by professors and assistant professors engaged in researching and teaching environmental law from the China University of Political Science and Law who volunteer their time.*

### TALKING POINTS

- Current Projects at CLAPV include:
  1. Offering legal advice for pollution victims through a telephone hotline, answering letters from pollution victims, and providing them with free legal advice.
  2. Running a "Lawyer's Mailbox," in cooperation with *China Environmental News*, which publicly answers reader's letters regarding questions of environmental law.
  3. Cooperating with relevant law firms to undertake environmental cases, which involve particularly complicated or important environmental legal questions. The Center pays for part of the legal and administrative expenses for pollution victims who are unable to pay for their own expenses because of pollution damages.  
For four more points see CLAPV website listed below under resources.
- You are working Chen Lifang's case. You know that in 2003, the factory in Chen's village submitted the requisite report detailing its projected environmental impact and plans for pollution control, which the local environmental protection bureau then approved. Among a number of misleading statements, the report claimed that no wastewater would be discharged directly into the Xiang River. Chen has decided not to plan another raid on the polluting industry. Instead you are working with her to prepare a lawsuit that would force local officials to shut down the factory. You visited the village and collected evidence of factory conditions and interviewed residents, environmental officials, and plant workers.
- When you were interviewing the factory owner and he bragged that some of the factory's technology had been imported from the U.S. you rejoined: "If you learned about commercial processes from America, why did you not also learn about environmental protection processes from America?"
- After your visit and interviews, you now plan to sue the local environmental protection bureau for rubber-stamping what appears to you as a faulty environmental-impact report. You believe it is easier to prove definitive administrative failure than to establish a direct link between the factory's emissions and the illnesses suffered by the villagers. The lawsuit looks like it will be a test of China's emerging collection of environmental laws and accompanying oversight mechanisms.

### THINGS TO CONSIDER

- You are dedicated to your work at CLAPV, but like many NGOs supported by volunteers you are understaffed. Since opening a public hotline for pollution victims in 1999, it has fielded about 10,000 calls, and CLAPV lawyers have provided legal aid for 98 cases (35 of which involved damage to human health). Although CLAPV has only won 12 of the cases that caused illnesses among the plaintiffs, many of the other cases compelled the local governments and industries to improve the situation of the pollution victims.

- Your colleague, CLAPV Founder and director Wang Canfa, joined you at a China Environment Forum at the Woodrow Wilson Institute and reported: "In principle, the Chinese public has the right to access environmental information and to influence environmental law decisions. For example, in 2006 a new regulation was passed that lays out requirements for public hearings for environmental impact assessments. Pollution victims also have a right to sue for damages to property and health; however, local-government control of courts can make it difficult for such cases to be heard. Moreover, the cost of hiring a lawyer can be prohibitively expensive. These difficulties underscore the value of CLAPV and a growing cohort of private environmental lawyers willing to work *pro bono* on pollution cases."\*
- While CLAPV can only take on a limited amount of cases, you believe that news reporting of these cases greatly expands the impact. CLAPV has even posted Christina Larson's January 2008 article in the *The Washington Monthly* that has been excerpted here and includes other investigative reporting, including: "*The walls inside the factory were black with soot; the equipment was rusty and looked poorly maintained. Sacks of chemical additives, ready to be shipped to customers, sat beside rusted barrels that oozed dark liquid onto the floor. We were accompanied that afternoon by several villagers, all shouting. Each had a complaint to air. 'We cannot endure anymore,' yelled Li Qiu Liang, whose father-in-law has spent the last five years unable to work; she claims pollution has made him sick. A sixty-six-year-old farmer, Wen Yun Kai, showed me a series of wrinkled letters he'd sent to local environmental officials after his cattle became sick and died; a local veterinarian had "verified" his claims and written at the bottom, 'It is truth.' A sixty-year-old fisherman, Xiao Xiang Lin, said his nets were empty because the Xiang River had 'no more fish.' Chen's husband and I also followed the pipeline that led from the wastewater holding basin into the river, a few hundred meters away. This is the pipeline the environmental impact report claims doesn't exist. Then he showed me a hole in the pipe where the villagers had smashed it open in order to confirm the presence of wastewater inside.*"

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### WHAT YOU NEED TO DO

- Choose a speechwriter and work with him/her on preparing a 3-5 minute speech that gives an overview of Xu Keshu/CLAPV's perspectives. Note that the talking points listed above come straight from reports and/or the CLAPV website.
- Conclude your speech by prioritizing your three goals for China to pursue on its road to environmental sustainability in the 21<sup>st</sup> century. Your goal is to make a convincing case from Xu's perspective.

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### RESOURCES

Center for Legal Assistance to Pollution Victims

<http://www.clapv.org/new/en/index.html>

"China's Pollution Revolution" by Christina Larson *The Washington Monthly* & CLAPV

<http://www.alternet.org/story/72995/> [http://www.clapv.org/new/show\\_en.php?id=80&catename=MR](http://www.clapv.org/new/show_en.php?id=80&catename=MR)

\*China Environment Forum Woodrow Wilson Institute 4/11/07 includes video

[http://www.wilsoncenter.org/index.cfm?event\\_id=228068&fuseaction=events.event\\_summary](http://www.wilsoncenter.org/index.cfm?event_id=228068&fuseaction=events.event_summary)



## HANDOUT #1.3F YOU ARE WANG GUOXIA, A LOCAL TOWNSHIP LEADER

*You are a local government leader in Anhui Province. Compared to its rich neighboring provinces (Zhejiang and Jiangsu), Anhui is relatively poor. Its GDP is about one third the level of Zhejiang and Jiangsu to the east. While some regions of Anhui (such as the industrial cities near the Yangtze River) are thriving, you are from a poor rural area in northwest Anhui.*

### TALKING POINTS

- You have encouraged local residents/relatives to set up a number of small profit-based township and village enterprises (TVEs). Under the tacit approval of the central government, your local industries have employed rural peasants, thereby limiting the flow of urban migration. You have worked to support local entrepreneurs and watched them compete relatively well in the present market.
- While the factory managers are accountable to market forces, they are happy not to be accountable to the central government (compared to the larger – and fewer – state-owned enterprises or SOEs). With the economy becoming more and more decentralized, you are pleased to be able to encourage poor farmers to take the initiative to start their own enterprises or join forces with others (from small family-run businesses to larger township factories). You want them to thrive for a number of reasons, including pressure to collect taxes to fund social services like health care and education.
- Right now your biggest headache has to do with the recent rumblings from Beijing regarding tying the evaluation of local leaders to environmental targets. While you realize the importance of a clean environment, right now forcing your local factories to invest in environmental technology is a low priority. You realize that their financial margins are so slim that they would have to close down. Every month, more and more young people are leaving their homes in your area. They are migrating to the wealthier neighboring provinces or to Shanghai or Beijing in search of more secure work. You not only support the few enterprises that are in your area, you are encouraging friends and relatives to start up their own businesses, whether they hire as few as 10 locals or as many as 100. You are willing to do whatever you can to support old and new enterprises, since they provide local employment and taxes. You are sad to see the youth of today leave their ancestral homeland, but meager farming can no longer sustain the rural residents.

### THINGS TO CONSIDER

- With the decentralization of the economy and Deng Xiaoping's "get rich quick" incentive, you have had a considerable amount of freedom to help launch a number of local businesses. Although you are aware of the environmental laws, you have been reluctant to close down (or even tax) polluting factories. You believe the economic benefits for your administrative area have outweighed the environmental costs.
- But times are changing. You are aware that the Central Government is sending out new directives. Right now these are beginning to be strictly enforced in provinces such as our neighboring province of Jiangsu. Jiangsu has prospered over the years with China's economic takeoff. With the help of provincial and local funds and their own added earnings (and these new laws with teeth), progressive green entrepreneurs and reluctant ones are signing on to new five-year plans to change into sustainable industries.
- In fact, in the National Eleventh Five-year Plan for Environment Protection published on March 5, 2008, there is a directive entitled, "Establish complete environmental law enforcement supervision system." It states "China will improve the equipment for environmental law enforcement supervision system." It states "China will improve the equipment for environ-

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mental law enforcement, focusing on supporting law enforcement capacity building in central and western part of China. It is expected that by 2010, the environmental law enforcement teams at province, city, and county levels will basically meet the requirements for standardize capacity building.”

- You are delaying instituting and enforcing environmental restrictions but you are doing it for all of the right reasons (keeping people employed, using taxes to build schools and clinics). Small farming alone can no longer sustain rural residents. With the break up of the communes (and its social welfare system) and the institution of a free market system, rural residents must now pay for education and health care. Unless there is work for young men and women, they tend to migrate to cities in order to support their parents back on the farm. If you close the factories where they work, all of the young people from the village will leave. You think this should be taken into account. How do you balance economic benefits with environmental costs? You are trying to do the right thing for your community.
- You are aware that there are many other local leaders across China who are dragging their feet for all of the wrong reasons. There are leaders who accept bribes from factory owners and who are willing to bribe local judges and environmental representatives so that they will write positive environmental reports and enable polluting industries to stay open. There are leaders who are fully aware that the people downstream are dying of water-borne illnesses, that farmers can no longer grow crops in polluted soils, and that drinking water is below all health standards. There are officials who buy land from poor farmers at very low values and then turn around and sell them at a huge profit to developers.

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### WHAT YOU NEED TO DO

- Choose a speechwriter and work with him/her on preparing a 3-5 minute speech that gives an overview of Wang Guoxia's perspectives. Although you are not a “real life” person, your personality is developed from a number of sources. You may want to do further research by using the articles below.
- Conclude your speech by prioritizing your three goals for China to pursue on its road to environmental sustainability in the 21<sup>st</sup> century. Your goal is to make a convincing case from Wang's perspective.

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### RESOURCES

“The Downside of Growth: Law, Policy, and China's Environmental Crisis” (*Perspectives*, Vol. 2, No. 2, 10/31/00)

[http://www.oycf.org/Perspectives/8\\_103100/downside\\_of\\_growth.htm](http://www.oycf.org/Perspectives/8_103100/downside_of_growth.htm)

“Far From Beijing's Reach, Officials Bend Energy Rules” (*New York Times*, 11/24/07)

<http://www.nytimes.com/2007/11/24/world/asia/24evaders.html>

“The Great Leap Backward?” (*Foreign Affairs*, Sept/Oct 2007) See page 5: Problems with the Locals

<http://www.foreignaffairs.org/20070901faessay86503/elizabeth-c-economy/the-great-leap-backward.html>

## HANDOUT #1.3G YOU ARE BROADCAST JOURNALIST TONY CHENG

*You are on the staff of Al-Jazeera-English TV and report from China. You recently did a three-minute TV broadcast from China about China's new ban on plastic bags. You visited the country's largest plastic bag factory where 20,000 workers have recently lost their jobs (due to the closing of plastic bag factory). In your TV report you discuss this as a dilemma between the environment and economy.*

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In your report you say:

*"The people of this village lost their farmland when the plastic bag factory opened up just down the road, but that was alright because they were promised a livelihood. Now they've lost even that, and they have nothing . . . all in the name of environmental protection. It's the dilemma China faces: if it protects the environment, it damages the economy, and for a developing nation, it's a big risk to take."*

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### WHAT YOU NEED TO DO

- Introduce the newscast and show the news clip. It can be downloaded from three of the resources listed below. (see \*)
- Be prepared to answer questions from the audience by reviewing the resources below.

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### RESOURCES

Reuters - UK "China Launches Surprise Crackdown on Plastic Bags

<http://uk.reuters.com/article/environmentNews/idUKPEK25589820080108?sp=true>

\*Blog Salon: No More Plastic Bags, No More Jobs

[http://www.salon.com/tech/htww/2008/04/01/china\\_s\\_plastic\\_bag\\_workers/index.html?source=rss&aim=/tech/htww](http://www.salon.com/tech/htww/2008/04/01/china_s_plastic_bag_workers/index.html?source=rss&aim=/tech/htww)

\*Blog: Andrew Leonard on Plastic Bags vs. Jobs (it is a big myth that good environmental policies are bad for the economy)

<http://eapblog.worldbank.org/content/plastic-bags-vs-jobs-there-is-really-no-dilemma-for-china>

\*Youtube: China's Environmental Economics, March 31, 2008

<http://www.youtube.com/watch?v=9cR2AR98iq4>



## HANDOUT #1.3H SYMPOSIUM ORGANIZERS: HU LIREN, ZHANG SHULI, LIN QINGNIAN

### WHAT YOU NEED TO DO

Hu Liren, Zhang Shuli, and Lin Qingnian are in charge of the Future of the Environment Symposium. See program schedule listed below. Please read **Handouts #1.3A-G** to study the roles of the symposium participants.

**Hu Liren's role:** Hu will need to prepare the welcoming remarks (two minutes) and introduce each speaker (one minute each). Hu is also responsible for timing each speaker. Each speaker is expected to give a 3-5 minute talk. They must give an overview of their perspectives on how to solve China's environmental challenges. They must conclude by prioritizing three goals for China to pursue on its road to environmental sustainability in the twenty-first century.

**Zhang Shuli's role:** Zhang is in charge of the Q&A.. She/he will ask the first question and then open the floor to the audience. Zhang's job is to keep the questions going and to intersperse her/his own questions if need be.

**Lin Qingnian's role:** Lin will make the concluding remarks, giving a summary of the perspectives that were covered. This information can be prepared a head of time after reading **Handouts #1.3A-G**. Lin will also need to record each participant's three goals and highlight any common threads.

### FUTURE OF THE ENVIRONMENT SYMPOSIUM AGENDA

- Welcome by Symposium Organizer Hu Liren
- Introduction of Chinese Premier Wen Jiabao by Hu (Hu will also introduce all of the symposium speakers)
- Brief speech by Wen Jiabao, the Premier of China
- Brief speech by Zhou Shengxian, the Minister of Environmental Protection
- Brief speech by Liang Congjie, President of Friends of Nature, a Beijing-based environmental NGO
- Brief speech by Chen Lifang, farmer and pollution victim
- Brief speech by Xu Kezhu, Deputy Director of the Center for Legal Assistance to Pollution Victims
- Brief speech by Wang Guoxia, local township leader
- Brief background and then showing of short TV news story on the closing of China's largest plastic bag factory by Tony Cheng, Independent Environmental Reporter
- Symposium Organizer Zhang Shuli will begin the Q&A and field questions from the audience
- Concluding remarks by Symposium Organizer Lin Qingnian
- Optional short timed-writing assignment for audience or entire class



## HANDOUT #1.3I AUDIENCE

### WHAT YOU NEED TO DO

- You are attending a special “Future of the Environment” symposium in Beijing, China. Your role is to listen to the speakers and ask questions. As you listen, you might want to take notes and think about who presented the most convincing case. (Each speaker will give his or her perspective on the environmental challenges facing China. Each will conclude by stating three goals that China should pursue on its road to environmental sustainability in the 21<sup>st</sup> century.)

For background information, please read one or more of the following articles:

Choking on Growth: “As China Roars, Pollution Reaches Deadly Extremes” (8/25/07 *New York Times*)

[http://www.nytimes.com/2007/08/26/world/asia/26china.html?\\_r=1&oref=slogin](http://www.nytimes.com/2007/08/26/world/asia/26china.html?_r=1&oref=slogin)

“The Great Leap Backward?” (*Foreign Affairs*, Sept/Oct 2007)

<http://www.foreignaffairs.org/20070901faessay86503/elizabeth-c-economy/the-great-leap-backward.html>

“A Large Black Cloud” (*The Economist*, 3/13/08)

[http://www.economist.com/surveys/PrinterFriendly.cfm?story\\_id=10795813](http://www.economist.com/surveys/PrinterFriendly.cfm?story_id=10795813)

“China’s Environment in a Globalizing World” (*Nature*, June 2005)

[http://www.csis.msu.edu/Publication%20files/China\\_Environment\\_Globalization.pdf](http://www.csis.msu.edu/Publication%20files/China_Environment_Globalization.pdf)





**HANDOUT #1.4A GRAPHIC ORGANIZER**

The Environment:

Current Issue or Historical Situation:

	Group #1	Group #2	Group #3
Positive Benefits			
Negative Consequences			
Source(s) for information on benefits and consequences:			
Proposed Solution (Contemporary Issue) or Proposed Alternative (Historical Situation):			
Reason #1:	Source(s): _____		
_____	_____		
_____	_____		
_____	Evidence: _____		
_____	_____		
_____	_____		
Reason #2:	Source(s): _____		
_____	_____		
_____	_____		
_____	Evidence: _____		
_____	_____		
_____	_____		
Reason #3:	Source(s): _____		
_____	_____		
_____	_____		
_____	Evidence: _____		
_____	_____		
_____	_____		



**HANDOUT #1.4B GRAPHIC ORGANIZER**

The Environment: China

Current Issue/Situation: Plastic Bag Pollution

	Plastic Bag Factory Owners	Chinese Citizens	Petroleum Producers
<b>Positive Benefits</b>	Makes money to hire workers, buy raw products like petrol; provides bags	Provides livelihood; convenient way to carry products	Hire workers Sell petroleum to Plastic Bag factories
<b>Negative Consequences</b>	Pollution from factory; creates non biodegradable product that becomes problematic litter, see *	*Not biodegradable; eyesore litter that hangs in trees/fences; clogs storm drains; gets into lakes, river, ocean; kills birds & marine mammals	Environmental degradation from production; most bags are thrown away, wasting millions of barrels of oil

**Source(s) for information on benefits and consequences:**

Reuters - UK "China Launches Surprise Crackdown on Plastic Bags

<http://uk.reuters.com/article/environmentNews/idUKPEK25589820080108?sp=true>

\*Blog Salon: No More Plastic Bags, No More Jobs

[http://www.salon.com/tech/htww/2008/04/01/china\\_s\\_plastic\\_bag\\_workers/index.html?source=rss&aim=/tech/htww](http://www.salon.com/tech/htww/2008/04/01/china_s_plastic_bag_workers/index.html?source=rss&aim=/tech/htww)

\*Blog: Andrew Leonard on Plastic Bags vs. Jobs (it is a big myth that good environmental policies are bad for the economy)

<http://capblog.worldbank.org/content/plastic-bags-vs-jobs-there-is-really-no-dilemma-for-china>

**Proposed Solution(s) (Contemporary Issue)**

Outlaw plastic bags and close down the plastic bag factory

Turn the plastic bag factory into a biodegradable plastic bag factory

<p><b>Reason #1:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Source(s):</b> _____</p> <p>_____</p> <p>_____</p> <p><b>Evidence:</b> _____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>Reason #2:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Source(s):</b> _____</p> <p>_____</p> <p>_____</p> <p><b>Evidence:</b> _____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>Reason #3:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Source(s):</b> _____</p> <p>_____</p> <p>_____</p> <p><b>Evidence:</b> _____</p> <p>_____</p> <p>_____</p> <p>_____</p>



HANDOUT #1.5 RUBRIC

	4 Excellent	3 Proficient	2 Partial	1 Minimal
<p><b>Geography 3.1.3a</b> Analyze and evaluate the positive benefits and negative consequences of people's different uses of the environment (Human/ Environment Interaction, Region)</p>	Provides <b>accurate analysis</b> of explicitly stated positive benefits and/or negative consequences of <b>three (or more) stakeholders' uses of the environment</b>	Provides <b>reasonable analysis</b> of explicitly stated positive benefits and/or negative consequences of <b>two stakeholders' uses of the environment</b>	Provides <b>reasonable analysis</b> of explicitly stated positive benefits and/or negative consequences of <b>one stakeholder's use of the environment</b>	<b>States</b> stakeholders' uses of the environment <b>without</b> describing or analyzing positive benefits or negative consequences
<p><b>Geography 3.1.3b</b> Analyze how environmental knowledge and responsible action can encourage species' survival in the midst of air, water, and land issues (Human/ Environment Interaction, Region)</p>	<p>(CONTEMPORARY ISSUE)</p> <p>Proposes a <b>reasonable solution</b> to the issue in terms of improving the health of the system with <b>three or more reasons</b> explicitly supported by accurate evidence</p>	<p>(CONTEMPORARY ISSUE)</p> <p>Proposes a <b>reasonable solution</b> to the issue in terms of improving the health of the system with <b>two reasons</b> explicitly supported by accurate evidence</p>	<p>(CONTEMPORARY ISSUE)</p> <p>Proposes a <b>reasonable solution</b> to the issue in terms of improving the health of the system with <b>one reason</b> explicitly supported by accurate evidence</p>	<p>(CONTEMPORARY ISSUE)</p> <p><b>Proposes a solution</b> to the issue that describes how the health of the system will be improved <b>with little or no support</b></p>
<p>RUBRIC DEPENDS ON WHETHER STUDENT RESPONSE ADDRESSES A HISTORICAL OR CONTEMPORARY ISSUE</p>	<p>(HISTORICAL SITUATION)</p> <p>Analyzes a historical situation in terms of the environment <b>AND proposes a reasonable alternative</b> in terms of what would have improved the health of the system with <b>three or more reasons</b> explicitly supported by accurate evidence</p>	<p>(HISTORICAL SITUATION)</p> <p>Analyzes a historical situation in terms of the environment <b>AND proposes a reasonable alternative</b> in terms of what would have improved the health of the system with <b>two reasons</b> explicitly supported by accurate evidence</p>	<p>(HISTORICAL SITUATION)</p> <p>Analyzes a historical situation in terms of the environment <b>AND proposes a reasonable alternative</b> in terms of what would have improved the health of the system with <b>one reason</b> explicitly supported by accurate evidence</p>	<p>(HISTORICAL SITUATION)</p> <p>Analyzes a historical situation in terms of the environment <b>AND proposes a reasonable alternative</b> in terms of what would have improved the health of the system <b>with little or no support</b></p>
<p><b>Social Studies</b> Inquiry and Information <b>Skills 3.1.4a</b> Identify multiple perspectives; compare and contrast; use multiple sources... determine relevant information</p>	<b>Explicitly cites and accurately restates or paraphrases</b> , and accurately interprets relevant information from <b>three specific sources</b>	<b>Explicitly cites and accurately restates or paraphrases</b> relevant information from <b>two specific sources</b> (may contain some inaccuracies)	<b>Explicitly cites and accurately restates or paraphrases</b> relevant information from <b>one specific source</b> (may contain some inaccuracies)	Uses only <b>anecdotal information</b> to support ideas, comparisons, and claims OR does not explicitly cite or state relevant information from sources