

ENVS 411: Contemporary Environmental Topics in China

CRN: 16950

Fall 2012 – 4.0 credits
Mon. & Wed. 12-1:50 142 Columbia

Instructors:

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Monday 2-3 PM in Columbia 47 A

Thursday 10-11 AM in Columbia 47 A

Course Description

As the most populous country in the world with more 1.3 billion people, China faces a diverse set of environmental challenges. This course is designed to introduce students to some of the greatest environmental concerns in China today. We will investigate air, land, and water issues throughout the six regions of China and examine some of the activism and solutions that emerging to tackle these problems. We will familiarize ourselves with China's geography as well as the political, historical, and social context of environmental issues in China before examining case studies on specific issues.

Course topics include soil erosion and deforestation, coal mining, dams, glacial melt, and water pollution. We will enrich our understanding of these topics by drawing connections to parallel issues and movements in the United States. Each student will develop a regional focus for a regional report, case study paper, and final presentation. In-class time will include film clips, some mini-lectures and presentations, and discussions. Active student participation is encouraged. We will watch many film shorts throughout the course to give students the opportunity to see the physical environmental changes we discuss in class.

Course Format

This course will not be lecture based. Active, engaged participation is central to this class. There will be few lectures. We will watch and analyze film clips, and do critical analysis of readings using small group discussions and participatory exercises, with an emphasis on critical thinking, effective communication skills, and having fun while learning. We as a class will be responsible for the learning that occurs. That means you are responsible for doing all the reading and coming to the class prepared for critical discussion. Everyone is expected to share their opinions, perspectives and experiences. Welcome and we look forward to learning with you!

Course Goals

- Recognize and understand the causes and effects of contemporary environmental issues in China
- Examine the cultural, social, and economic implications of environmental challenges
- Stay current with media stories about China's environment
- Examine China's position in the context of the global environment
- Gain experience in teamwork through a group project and presentation
- Gain critical thinking and effective communication skills through class activities and assignments

- Practice interdisciplinary thinking: bringing together social science, natural science, and the humanities through the study of economics, policy, anthropology, ecology, and history

Learning Objectives

By the end of this course, you will be able to:

1. Identify and discuss key political, economic, ecological and cultural issues in China
2. Identify potential human and environmental impacts from proposed economic or political actions
3. Engage in nuanced discussion about China's role in a variety of national and international environmental topics
4. Evaluate media coverage of China's environmental situation for bias and balance
5. Effectively present your new understandings to an audience

Course Requirements

Participation (10%) You are responsible for completing all the assigned reading and coming to class prepared to discuss the materials in an analytical manner.

Regional Report (10%) submitted and presented in week 2. This is a short report (2 pages) in which each student is asked to introduce a specific aspect of a specific region in China which is pre-assigned. Examples include: demographics, ecological characteristics, major industries and economic activities, and key environmental concerns. Students will give an informal presentation at a "round-table" discussion with other students assigned to the same region so that they may become more familiar with that region. Each student will have 5 minutes to share what they learned with their group and the group will also work on other assigned discussion questions. You will be given a resource list to help with your research and will be required to hand in their report the day before the discussion so that the instructors can review them.

Reading Reviews (15%) 2 total, submitted weeks 3-8. The reading review is a writing assignment in which you are asked to summarize the main points of the readings and include your own thoughts and reactions to the readings as well as any questions they may have. It is a way for you to demonstrate their understanding of the materials and for instructors to gauge students' understanding of the material. They will be due at noon on the Tuesday prior to the Wednesday for which the readings were assigned. Instructors will review the assignments to determine how to best lead class discussion.

Current Event Reports (15%) 2 total, submitted weeks 3-8. Weekly writing assignments that record media clips/recent events in the news, your reaction to them and how these relate to the readings assigned for that week. You are required to do three two assignments throughout the course of the term worth 7.5% each. Articles would preferentially originate from the region assigned in the first group assignment. You will be asked to briefly present their news clips to the class once or twice during the term. Please refer to the resource list to aid you in your research.

NOTE: You will need to hand in 2 Readings Reviews and 2 Current Events Assignments between weeks 3 and 8. You can only submit one each week but can choose which one to submit each week.

Midterm Exam (15%) week 6

Case Study Paper (20%) due in week 9. This research-based paper assignment will ask you to examine case study of an environmental issue from assigned region. Case studies may be more in-depth examinations of topics covered in class or new material. You will outline specific political, cultural, and social aspects of the particular environmental issue. More specific instructions will be handed out and discussed in class. Please refer to the resource list to aid you in your research. You

are required to hand in a draft or outline at least one week before the paper is due for instructors to read, review, and provide comments. The draft/outline will not be graded. It is an opportunity for you to get feedback and revise your work.

Regional Group Final Presentation (15%) Students will incorporate the findings of their case study into a regionally based group presentation to the rest of the class. **Given in week 10.**

Evaluation

Every class is designed with explicitly defined learning objectives in mind. At the end of most classes we will evaluate where we stand in relation to these objectives. Students are encouraged to actively participate in thoughtful reflection and evaluation of their educational experience, both during and at the completion of the course.

Course Outline for ENVS 411: Contemporary Environmental Topics in China

I. Introduction and Background (2 weeks)

Week 1

- a. Course introduction, physical, historical, and political background
- b. Regions: our preview and assigning groups

Week 2

- a. Timelines of environmental law and activism in China
- b. Regional roundtable with groups

II. Environmental Challenges and Approaches: Land (3 weeks)

Week 3-Grasslands, soil erosion, and desertification

- a. Desertification and soil erosion. *Case study: Loess Plateau*
- b. Solutions/activism and reforestation efforts. *Case study: Loess Plateau*

Week 4-Forests

- a. Deforestation. *Case study: Heilongjiang province*
- b. Conservation and Reforestation efforts.

Week 5-Coal

- a. Coal mining and carbon dioxide emissions
- b. Renewable energy and anti-coal activism

Midterm

Week 6

- a. In-class midterm
- b. Air Pollution and Chinese Eco-Cities

III. Environmental Challenges and Approaches: Water (3 weeks)

Week 7-Dams

- a. Dams, displacement, and environmental impacts. *Case study: Three Gorges Dam*

- b. Activism against dams. *Case study: Nu River*

Week 8-Dams and glacial melt

- a. Guest presentation and debate. *Case study: Nu River*
- b. Glacial melt impacts. *Case study: Tibetan Plateau*

Week 9-Water pollution

- a. Wetland encroachment, water pollution, and biodiversity. *Case study: Dongting Lake*
- b. Pollution and resistance.

IV. Final Synthesis (1 week)

Week 10

- a. Final regional presentations
- b. Final regional presentations and course conclusions

ENVS 411: Contemporary Environmental Topics in China

Course Outline with Required Readings

I. Introduction and Background (2 weeks)

Week 1

- a. Course introduction, physical, historical, and political background**
- b. Regions: our preview and assigning groups**

Readings:

Johnston, B. & Byrne, M. 1994. Defining the crisis, shaping the response: An overview of environmental issues in china. In: Johnston, Barbara Rose (Ed.) ,*Who Pays the Price? The Sociocultural Context of Environmental Crisis*. Washington, D.C.; Covelo, Calif.: Island Press. Read p 69-72 only.
Stop at the Three Gorges section.

Morrish, M. (1997). The living geography of china. *Geography* (Sheffield, England), 3-16. **Read pages 1-7 only. Stop at Human Rights section.**

Week 2

DUE: Regional Report (e-mailed by Tuesday at noon to instructors)

- a. Timelines of environmental law and activism in China**

Readings:

Economy, Elizabeth. 2005. China's Environmental Movement. Council on Foreign Relations. February 7, 2005. <http://www.cfr.org/china/chinas-environmental-movement/p7770>

Larson, Christina. 2011. Green Activists Feel Sting of Chinese Government Crackdown. *Yale Environment 360*. June 30, 2011. New America Foundation. Accessed September 6, 2012. http://newamerica.net/publications/articles/2011/green_activists_feel_sting_of_chinese_governm ent_crackdown_54113

Stalley, Philip, Yang ,Dongming. 2006. "An Emerging Environmental Movement in China? ", *The ChinaQuarterly*, 186. 333-356.

Wray-Lake, L, Flanagan, .C., & Osgood, D. W. 2010. Examining trends in Adolescent Environmental Attitudes, Beliefs, and Behaviors Across Three Decades. *Environment and Behavior*: 42, 61-85.

- b. Regional roundtable with groups**

Readings:

List of the Regions of China. Wikipedia.org. http://en.wikipedia.org/wiki/List_of_regions_of_China

II. Environmental Challenges and Approaches: Land (3 weeks)

Week 3-Grasslands, soil erosion and desertification DUE: Reading Review or Current Event Assignment

a. Desertification and soil erosion. Case study: Loess Plateau

Readings:

Shi, H. , & Shao, M. (2000). Soil and water loss from the loess plateau in china. *Journal of Arid Environments*, 45(1), 9-20.

Mann, Charles C. 2008. Our Good Earth. *National Geographic*, September 2008. National Geographic.com. Read pages 1-5. <http://ngm.nationalgeographic.com/2008/09/soil/mann-text/1>

Gluckman, Ron. 2000. Beijing's Desert Storm. Asia Week. <http://www.gluckman.com/ChinaDesert.html> Accessed February 16, 2012.

Watts, Jonathan. 2009. "We have taken every measure we can think of to stop the desert moving closer and submerging our crops and villages." *The Guardian*. May 18, 2009. The Guardian.co.uk <http://www.guardian.co.uk/world/2009/may/18/china-ecorefugees-farming>

Environment: Nomads face shrinking future as grass dies on the roof of the world: Desertification of Tibetan plateau is wreaking havoc on traditional ways of life. *The Guardian (London)* - Final Edition. September 3, 2010. Lexis Nexis Academic Web. Accessed February 16, 2012

Soil erosion affects 37pc of mainland, three-year survey finds. *South China Morning Post*. January 30, 2009. Lexis Nexis Academic Web. Accessed February 16, 2012.

b. Solutions/activism and reforestation efforts Case study: Loess Plateau

Readings:

Wang, X.M., Zhang, C.X., Hasi, E., and Dong, Z.B. 2010. Has the Three Norths Forest Shelterbelt Program solved the desertification and dust storm problems in arid and semiarid China? *Journal of Arid Environments*, 74. 13-22.

Yeh, Emily. 2010. Restoring the Grasslands? *China Dialogue.net*. The third pole. January 26, 2010. Accessed September 15, 2012. <http://www.chinadialogue.net/article/show/single/en/3470>

Chen, L., Wei, W. , L2;, Y. , & Fu, B. 2007. Soil and water conservation on the loess plateau in china: Review and perspective. *Progress in Physical Geography*, 31(4), 389-403.

Chan, Joyee. 2011. Rehabilitation move helps turn back time; Ambitious plans for transforming a desert area in China back into lush farmland has proved a success. *South China Morning Post*. December 5, 2011. Lexis Nexis Academic. Accessed February 16, 2012.

Watts, Jonathan. 2011. China makes gain in battle against desertification but has long fight ahead. The Guardian. June 4, 2011. Guardian.co.uk. Accessed February 18, 2012.
<http://www.guardian.co.uk/world/2011/jan/04/china-desertification>

Week 4-Forests

DUE: Reading Review or Current Event Assignment

a. Deforestation. Case study: Heilongjiang province.

Readings:

Zhang, Yaoqi. 2001. Deforestation and Forest Transition: Theory and Evidence in China. *World Forests*, 2 (II), 41-65.

Harkness, James. 1998. Recent trends in forestry and conservation of biodiversity in China. *The China Quarterly*, 156, 911-934.

Gittings, J. 2001. Battling China's deforestation. The Guardian.
<http://www.guardian.co.uk/world/2001/mar/20/worlddispatch.china>. Accessed January 7, 2011.

China says deforestation still a major environmental problem. 2005. Terra Daily: [Agence France-Presse](http://www.terradaily.com/2005/050118102656.tgm9j244.html). BEIJING (AFP) Jan 18. <http://www.terradaily.com/2005/050118102656.tgm9j244.html>. Accessed January 7, 2011.

Deforestation in Heilongjiang violates government's Natural Forest Protection Program. People's Daily. Translated by Angela Merriam. China Green News Website. Accessed Feb. 18, 2002.
<http://eng.greensos.cn/ShowArticle.aspx?articleId=1102>

Tibet Information Network. 1996. Secret Film of Deforestation in Tibet. Canada Tibet Committee Website. May 10, 1996. Accessed July 13, 2012.
http://www.tibet.ca/en/newsroom/wtn/archive/old?y=1996&m=5&p=10_2

b. Conservation and Reforestation efforts. Case study: Heilongjiang province.

Readings:

Trac, C.J., Harrell, S., Hinckley, T.M., and Henck, A.C. 2007. Reforestation Programs in Southwest China: Reported Success, Observed Failure, and the Reasons Why. *Journal of Mountain Science*, 4(4), 275-292.

Zhao, G. and Shao, G. 2002. Logging Restrictions in China: A Turning Point for Forest Sustainability. *Journal of Forestry*, 4 (1), 34-37

China's Great Green Wall. 2009. The Guardian.co.uk. March 10, 2009.
<http://www.guardian.co.uk/environment/gallery/2009/mar/11/forests-deforestation#/?picture=344394150&index=10>

Watts, J. 2009. China's loggers down chainsaws in attempt to regrow forests. The Guardian. Wednesday March 11th. Accessed September 14, 2012.
<http://www.guardian.co.uk/environment/2009/mar/11/china-forests-deforestation>

The green revolution China's shoots of hope; Woods are spreading over hills around the city where Chairman Mao lived. Alice Fishburn looks at pressures to grab land for food or forests. 2009. The Times (London). November 5, 2009. Lexis Nexis Academic. Accessed February 16, 2012.

China, US agree to jointly combat illegal logging. 2007. BBC Monitoring Asia Pacific - Political Supplied by BBC Worldwide Monitoring. December 14, 2007. Lexis Nexis Academic. Accessed February 16, 2012.

Tibet Information Network. 1998. Logging Ban. August 26, 1998. Tibet Environmental Watch Website. Accessed July 13, 2012. http://www.tew.org/archived/ban_logging.html

Week 5-Coal

DUE: Reading Review or Current Event Assignment

a. Coal mining and CO₂ emissions.

Readings:

Hou, Y. L., & Hu, M. 2007. China And Her Coal. *World Watch*, 20 (1), 14-15.

McKibben, B. 2011, June. Can China Go Green? *National Geographic*. Retrieved from <http://ngm.nationalgeographic.com/2011/06/green-china/mckibben-text/1>

Vandenbergh, M. P. 2008. Climate Change: the China Problem. *Southern California Law Review*, 81 (5), 905-958. **Read through the “U.S. Problem” on p 929 only.**

b. Renewable Energy and Anti-Coal Activism

Readings:

Liu, W., Lund, H., Mathiesen, B., & Zhang, X. 2011. Potential of renewable energy systems in china. *Applied Energy*, 88(2), 518-525.

With policy support, China's wind industry growing exponentially. 2011, May 30. *People's Daily Online*. Retrieved from <http://english.peopledaily.com.cn/90001/90778/90860/7394662.html>

Simons, C. 2012. Chinese Demand Stokes U.S. Coal Battle. *The Alicia Patterson Foundation*. Retrieved from <http://aliciapatterson.org/stories/chinese-demand-stokes-us-coal-battle>

West, C. 2012, September 18. US coal exports make mockery of green policies. *China Dialogue*. Retrieved from <http://www.chinadialogue.net/article/show/single/en/5166-US-coal-exports-make-mockery-of-green-policies>

Mortensen, C. 2012, January 19. Coal Train: Fossil fuels make tracks through Oregon. *Eugene Weekly*. Retrieved from http://www.beyondtoxics.org/wp-content/uploads/news/Eugene_Weekly-Coal_Train_1.19.12.pdf

Midterm : Week 6

DUE: Reading Review or Current Event Assignment

- a. In-class midterm**
- b. Air Pollution and Chinese Eco-Cities**

Readings:

Walsh, M. P. 2004. Motor vehicle pollution and fuel consumption in China. In National Research Council (U.S.). Development, Security, and Cooperation (Ed.), *Urbanization, Energy, and Air Pollution in China: The Challenges Ahead--Proceedings of a Symposium* (11-28). Washington, D.C.: National Academic Press.

Zhao, M. 2012, July 5. A stunning visualization of China's air pollution. *The Atlantic*. Retrieved from <http://www.theatlantic.com/international/archive/2012/07/a-stunning-visualization-of-chinas-air-pollution/259455/>

The Battle for East Lake in Wuhan, China. 2010, April 13. *Libcom.org*. Retrieved from <http://libcom.org/news/battle-east-lake-wuhan-13042010>

III. Environmental Challenges and Approaches: Water (3 weeks)

Week 7-Dams

DUE: Reading Review or Current Event Assignment

a. Dams, displacement, and environmental impacts. Case study: Three Gorges Dam.

Readings:

Hvistendahl, M. 2008, March 25. China's Three Gorges Dam: An environmental catastrophe? *Scientific American*. Retrieved from <http://www.scientificamerican.com/article.cfm?id=chinas-three-gorges-dam-disaster>

Yardley, J. 2007, November 19. Chinese dam projects criticized for their human cost. *Choking on Growth: Part IV, The New York Times*. Retrieved from http://www.nytimes.com/2007/11/19/world/asia/19dam.html?pagewanted=1&_r=1

Fu, B. , Wu, B. , Lu, Y. , Xu, Z. , Cao, J. , et al. 2010. Three gorges project: Efforts and challenges for the environment. *Progress in Physical Geography*, 34(6), 741-754.

Wilmsen, B. , Webber, M. , & Yuefang, D. 2011. Development for whom? Rural to urban resettlement at the Three Gorges Dam, China. *Asian Studies Review*, 35(1), 21-42.

b. Activism against dams.

Readings:

Majot, J. 1993. Portrait of a dam-fighter. *Earth Island Journal*, 8(4), 16.

Yan, K. 2011, May 26. Averting a nightmare on the Nu. *The Third Pole*. Retrieved from <http://www.chinadialogue.net/article/show/single/en/4314-Averting-a-nightmare-on-the-Nu->

The Salween River Basin Fact Sheet. 2012. *International Rivers*. Retrieved from <http://www.internationalrivers.org/resources/the-salween-river-basin-fact-sheet-7481>

Waking the Green Tiger Background. 2011. *Face to Face Media*. Retrieved from <http://www.facetofacemedia.ca/page.php?pageID=109§ionID=2&pageParentID=107>

Week 8-Dams (cont.) & Glacial melt DUE: Reading Review or Current Event Assignment, Case Study Paper outline or draft

- a. Guest presentation and class debate. *Case study: Nu River.*

- b. Glacial melt impacts, *Case study: Tibetan Plateau.*

Readings:

Krishnan, Ananth. 2011. Tibetan plateau's glaciers melting rapidly. The Hindu online. October 22. <http://www.thehindu.com/news/international/article2562870.ece>

Becker, Marcus. 2011. The Changing Climate. Chinese Scientists Warn of Significant Glacier Melt. Spiegel Online International. October 26. Accessed February 15, 2012. <http://www.spiegel.de/international/world/0,1518,794124,00.html>

Watts, Jonathan. 2008. China: Melting glacier leaves world's worst polluter with no room for doubt. READ AND WATCH FILM. The Guardian. July 24. Accessed February 15, 2012. <http://www.guardian.co.uk/environment/2008/jul/25/glaciers.climatechange>

Hewitt, Kenneth. 2010. Understanding Glacial Changes. China Dialogue. Chinadialogue.net. Accessed August 28, 2012. <http://www.chinadialogue.net/article/show/single/en/3478>

Walker, Beth. 2010. Policies for an Eco-Plateau. China Dialogue. Accessed August 28, 2012. <http://www.chinadialogue.net/article/show/single/en/3469>

Ives, M. 2012. Melting Glaciers May Worsen Northwest China's Water Woes. Yale Environment 360. Accessed November 1, 2012. http://e360.yale.edu/feature/melting_glaciers_may_worsen_china_water_woes_tarim_river/2556/

Week 9-Water pollution

DUE: Case Study Paper

- a. Wetland encroachment, pollution, and biodiversity. *Case study: Dongting Lake*

Readings:

Fang, J. , Wang, Z. , Zhao, S. , Li, Y. , Tang, Z. , et al. 2006. Biodiversity changes in the lakes of the central Yangtze. *Frontiers in Ecology and the Environment*, 4(7), 369-377.

Pollution control of the Dongting Lake area: Conserving the 'kidney of the Yangtze river.' 2011. *Hunan Provincial Government*. Retrieved from http://enghunan.gov.cn/SP/ProtectMotherRiver/XiangjiangRiverRecords/201103/t20110304_314761.html

Wang, H. R. 2012. Critically endangered. *Beijing Review*, 55(21), 18-19. Retrieved from http://www.bjreview.com/nation/txt/2012-05/21/content_453877.htm

Wang, T. 2012, February 29. Lonely death of the river pig. *Southern Weekend*. Retrieved from <http://www.chinadialogue.net/article/show/single/en/4783-Lonely-death-of-the-river-pig>

b. Pollution and resistance.

Readings:

Wang, M. , Webber, M. , Finlayson, B. , & Barnett, J. 2008. Rural industries and water pollution in China. *Journal of Environmental Management*, 86(4), 648-659.

Lyn, T. E. 2009, September 17. China's "cancer villages" bear witness to economic boom. *Reuters*. Retrieved from <http://in.reuters.com/article/2009/09/17/us-china-pollution-cancer-idUSTRE58G00T20090917>

Kahn, Joseph. 2007. Choking on Growth Part III: In China, a Lake's Champion Imperils Himself. *The New York Times*. Retrieved from http://www.nytimes.com/interactive/2007/10/14/world/asia/choking_on_growth_3.html#story1

Ma, J. , & Li, N. 2006, September 21. Tackling China's water crisis online. *China Dialogue*. Retrieved from <http://www.chinadialogue.net/article/show/single/en/392-Tackling-China-s-water-crisis-online>

Branigan, T. 2012, July 3. Anti-pollution protesters halt construction of copper plant in China. *The Guardian*. Retrieved from <http://www.guardian.co.uk/world/2012/jul/03/china-anti-pollution-protest-copper>

IV. Final Synthesis (1 week)

Week 10: Conclusion

DUE: Presentations

- a. Final regional presentations**
- b. Final regional presentations and course conclusions**