MPUP5422 Environmental Policy Analysis

2019-2020 Term II

Instructors:

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Lecture Time: Wednesdays, 6:45pm - 9:30pm **Location:** Wu Ho Man Yuen Bldg 508

A. COURSE OVERVIEW

This course trains students to formulate environmental policy and apply environmental policy instruments. It begins with the fundamental concept of environmental policy cycle and explores the complexity of policy making in the context of institution set-up, political ecology and concerns of various stakeholders. The major considerations in environmental policy-making and choice of policy instruments will be examined. Students will be guided to discuss policies and/or policy instruments with respect to current environmental problems of Hong Kong, China and the world.

B. <u>LEARNING OUTCOMES</u>

At the end of the course, students are expected to be:

- conversant with environmental policy making and its complexity;
- able to analyze and critique environmental policies;
- capable of choosing appropriate policy instruments; and
- familiar with the dynamics of the environmental movement and pursuit for sustainability.

C. TEACHING AND LEARNING ACTIVITIES

Teaching and learning take various forms, including:

- Lectures: 2 hours/week
- In-class discussion: 1 hour/week
- Student project on case analysis: outside class at student's own time. Each student should
 - Submit a proposal (about 1000 words) and a list of relevant literature on/before 26
 February 2020; and
 - o Submit a final report of about 5000 words on/before 29 April 2020.
- Fieldtrip (mandatory)
 - o 8 March 2020: Dolphin watch in western waters
 - o Submit a short trip report on/before 24 March 2020.

D. COURSE ASSESSMENT

- Case analysis: 70% [in-depth analysis of a case/issue, with proposal and final written report]
 - o Proposal and relevant literature (20%), due by 2359h on 26 February 2020
 - Written paper: 50% (about 5000 words, including the proposal; due by 2359h on 29 April 2020
- Fieldtrip report (15%), due by 2359h on 24 March 2020
- In-class discussion (15%, including peer assessment)

E. FEEDBACKS AND EVALUATION

Teachers will provide feedbacks on students' assignments (case analysis proposal; case analysis report and mini-presentation) to facilitate learning.

Students' feedback on the course will also be obtained through:

A simple questionnaire on course content and delivery on the 4th week Term end course
evaluation Students are also encouraged to air their views during class discussions and through
emails

F. <u>LECTURE TOPICS</u>

Week	Date	Lecture Topic	Concepts		
1	08.01.20 KCL	Introduction – framework for understanding environmental policy; nature of environmental problems – externality, tragedy of commons, institution failure, and the pursuit for sustainability	Environmental sustainability, policy cycle, externality, commons, institution failure		
Part I: Key considerations in formulating environmental policies					
2	15.01.20 XY	Cost benefit analysis	Value of a statistical life, discount rate, hedonic pricing		
3	22.01.20 XY	Environmental justice and politics , pollution haven hypothesis and sustainability	Pollution heaven and migration, pollution/mitigation burden		
	29.01.20	No Class – Chinese New Year Holidays			
4	05.02.20 KCL & XY	Project Consultation			
5	12.02.20 KCL	Policy-making Process and stakeholder dynamics – models of policy making, linear and looping process, environmental movement, advocacy groups, societal and institutional response to environmental issues, administrative efficiency, environmental effectiveness and equity, hurdle to change	Linear and looping policy making, rational and garbage can model, adaptive management, stakeholder analysis, conflict management		
6	19.02.20 KCL	Exposure-effect analysis	Exposure response, risk, uncertainty, standard setting		

	26.02.20	Submission of Case Analysis Proposal			
Part II: Environmental policy instruments					
7	26.02.20 XY	Market utilization (tax, fee, subsidy removal, deposit-refund) and creation (property rights, cap and trade)	Environmental tax, fee, subsidy, deposit-refund, cap and trade		
8	04.03.20 KCL	Environmental planning & environmental assessment	EIA, SEA, strategic planning, environmental monitoring and audit		
9	08/03/20 KCL	Field Trip - Impact of infrastructure on dolphins	See Blackboard for details		
10	11.03.20 KCL	Alternative management strategy	Environmental control, noise management, soundscape design		
11	18.03.20 XY	Command and control - regulations, enforcement	Mandatory and voluntary compliance		
	24.03.20	Submission of Fieldtrip report			
Part III: Environmental policy analysis in the real world					
12	25.03.20 XY	Control of air pollution: SO ₂ mitigation in China	Science, technology, governance, policy, implementation		
13	01.04.20 XY	Control of climate change: Kyoto Protocol, Copenhagen Accord and Paris Agreement	Greenhouse gases, climate change, mitigation, energy transition		
	29.04.20	Submission of Case Analysis Report			

G. Case Analysis Guidelines

Students should find a case in the real world, either in Hong Kong, China or beyond. The case can be a policy that has been implemented or a new policy which you propose. You are not allowed to duplicate any case or policy which you have analyzed in other courses of this program. You may also be asked to change your case if two or more students have selected the same. In case of duplication, the topic will be assigned to the one who submits first.

You are required to submit a **proposal on/before 26 February 2020** which includes (i) a brief introduction of the problem/case; (ii) its significance; (iii) what you propose to do; and (iv) a list of relevant literature/materials (no less than 10 items).

The **final report** will be due by **2359h on 29 April 2020** and late submissions will be subject to a penalty of 10% per day. The length should be about 5000 words. Your case analysis report is expected to cover the following aspects:

- What issues does the policy address? Why is the policy needed?
- What is the policy goal?
- What policy instrument options were available? [For a new policy what instrument options are available? What have you proposed? Why?]
- Who are the stakeholders? How different are/were they in their views and demands? How can/could their concerns be addressed?
- For an existing policy Has the goal been achieved? What are the effects? How do you explain the results?

• For a new policy – How effective the policy will be? What are the hurdles and constraints and what will you do to overcome these issues?

The case analysis' assessment will be based on the following:

- Knowledge and understanding of the issue (5%)
- Application of the analytical framework learned in the course to the selected case (5%)
- Evaluation of various policy options and instruments (15%)
- Assessment of the effectiveness and outcome of the policy (15%)
- Collection, reading and understanding of relevant literature, information and data (5%)
- Report preparation structure, language and overall presentation (5%)

In preparing the proposal and final report, you are advised to use the Harvard citation style for references, as elaborated in CUHK website:

http://www.cuhk.edu.hk/policy/academichonesty/Eng htm files (2013-14)/p03 2.htm

H. Field Trip Report

Using the analytical framework introduced in Week 5 "Policy Making Process and Stakeholder Dynamics", based on your observations and research, write a report on any <u>three</u> of the following four perspectives: "value", "politics", "science" and "stakeholders". The report need not be longer than 600 words and must be submitted on/before 24 March 2020.

I. Grading Descriptors

- A: Outstanding performance on all learning outcomes.
- A-: Generally outstanding performance all (or almost all) learning outcomes.
- B: Substantial performance on all learning outcomes, OR high performance on some learning outcomes which compensates for less satisfactory performance on others, resulting in overall substantial performance.
- C: Satisfactory performance on the majority of learning outcomes, possibly with a few weaknesses.
- D: Unsatisfactory performance on a number of learning outcomes, OR failure to meet specified assessment requirements.*
- F: Very unsatisfactory performance on a number of learning outcomes, OR failure to meet specified assessment requirements.

J. <u>REFERENCE BOOKS</u>

Portney, P.R. & Stavins, R.N. ed., 2000. **Public Policies for Environmental Protection. Resources for Future**. [Electronic resource through the university library website: http://web.ebscohost.com/ehost/ebookviewer/ebook/nlebk_46132_AN?sid=f13ac6df-530c-4a9c-a13e-a1a5ccf2e83b@sessionmgr12&vid=1]

^{*}Remarks: Grade D would be the failing grade for MPUP.

- Ahmed, K., Sanchez-Triana, E., 2008. **Strategic Environmental Assessment for Policies**. World Bank. [Electronic resource through the university library website: http://site.ebrary.com/lib/cuhk/docDetail.action?docID=10236055]
- Cohen, Steven, 2014. **Understanding Environmental Policy**. 211 pp. Columbia University Press: New York.
- Delvin, R-A & Grafton, R.Q., 1999. **Economic Rights and Environmental Wrongs Property Rights for the Common Good**. 190 pp. [Electronic resource through the university library website: http://web.ebscohost.com/ehost/ebookviewer/ebook/nlebk_55446_AN?sid=dca151d4-7f0e-4644-bf1c-1332ad3f95d2@sessionmgr11&vid=1]
- Stavins R.N., 2019. Economics of the Environment: selected readings. Edward Elgar Pub; 7th edition.
- Tietenberg T.H. & Lewis L., 2018. **Environmental and Natural Resource Economics.** Routledge; 11th Edition.

K. READINGS

1. Introduction

- Mitchell, B., 2002. "Change, Complexity, Uncertainty and Conflict", In Chapter 1, Resource and Environmental Management, pp. 1-25. #
- Andrews, R.N.L., 2006. "US Environmental Politics, Policies and the Common Good", Environment, 48(9): 28-44.
- Bauhinia Foundation (2007) The Road to Better Policy-making and Governance in Hong Kong. Bauhinia Foundation Research Report. 236 pp.
- Helm, D., 2000. "Objectives, Instruments, and Institutions", in D. Helm (ed.) Environmental Policy: Objectives, Instruments and Implementation, pp. 1-28, Oxford: Oxford U. Press.
- Roque, C.R., 1986. "Factors Influencing Environmental Policies in Developing Countries", in Asian Development Bank (ed.) Environmental Planning and Management. Asian Development Bank. pp. 134 83.
- World Bank, 2005. Integrating Environmental Considerations in Policy Formulation: Lessons from Policy-Based SEA Experience. World Bank Report No. 32783
- Young, O.R., King, L.A. and Schroeder H. (2002). Institutions and Environmental Change: Principal Findings, Applications, and Research Frontiers. MIT Press.

2. Cost benefit analysis

Stern, N. 2007, Stern Review: The Economics of Climate Change, Executive summary

Envist, P.-A., Naucler, T. and Rosander, J., 2007. "A cost curve for greenhouse gas reduction." The McKinsey Quarterly (1): 35-45.

- Hanemann, W. M., 1994. "Valuing the Environment through Contingent Valuation." Journal of Economic Perspectives 8(4): 19-43.
- World Bank, 2007. Cost of pollution in China: economic estimates of physical damages. Washington, D.C.

3. Environmental justice & politics

- Keohane, N. O., Revesz, R. L. and Stavins, R. N., 1998. "The Choice of Regulatory Instruments in Environmental Policy." Harvard Environmental Law Review 22(2): 313-367.
- Hardin, G., 1968. "Tragedy of Commons." Science 162(3859): 1243-1248.
- Wu, F., 2009. "Environmental Politics in China: An Issue Area in Review." Journal of Chinese Political Science 14(4): 383-406.
- Almeida, P. and L. B. Stearns, 1998. "Political opportunities and local grassroots environmental movements: The case of Minamata." Social Problems 45(1): 37-60.
- Vanhala, L., 2013. "The comparative politics of courts and climate change." Environmental Politics 22(3): 447-474.

4. Project consultation

5. Policy-making Process and stakeholder dynamics

- Ahmed, K., Sanchez-Triana, E., 2008. Strategic Environmental Assessment for Policies Chapter 3, pp. 37-59, World Bank. [Electronic resource through the university library website: http://site.ebrary.com/lib/cuhk/docDetail.action?docID=10236055]
- Cheung, A., 2007. "Policy Capacity in Post-1997 Hong Kong: Constrained Institutions Facing Crowding and Differentiated Polity", The Asia Pacific Journal Of Public Administration, 29 (1): 51-75.
- Jordan, A., Wurzel, R.K.W., Zito R. & Brückner, L. (2003) Policy Innovation or 'Muddling Through'? 'New' Environmental Policy Instruments in the United Kingdom, Environmental Politics, 12(1), 179-200
- Mitchell, R. K., Agle, B. R. and Wood, D.J., 1997. "Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What really Counts.", Academy of Management Review 22(4): 853 888.
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- Loh, C. 2001. "Air pollution, so much to do, so many roadblocks", in Chan et. al. (eds.) The Air We Breathe: Air Pollution in Hong Kong, pp. 49-57.
- Reed, M.S. 2008. "Stakeholder participation for environmental management: A literature review", Biological Conservation, 141: 2417-2431.

Tsang, S., M. Burnett, P. Hills, R. Welford, 2009. "Trust, Public Participation and Environmental Governance in Hong Kong", Environmental Policy and Governance (19): 99–114.

6. Exposure-effect analysis

- Liu J.L.Y. and Hedley A.J., 1996. "Epidemiologic and Economic Analyses of the Environment: Examples Dealing With Hong Kong's Air Pollution." Asian Journal of Environmental Management 14(2): 121-130.
- Hedley A.J., McGhee, S.M., Wong, C.M., Barron, B., Chau, P., Chau, J., Thach, T.Q., Wong T.W., Loh C., 2006. Air Pollution: Cost and Paths to a Solution. Understanding the connection between visibility, air pollution and health costs in pursuit of accountability, environmental justice and health protection. Civic Exchange.
- Loh C., Stevenson A., Weldon, M., Hedley, A., McGhee S., Lai H.K., Chau J., Chau, P.Y.K., Wong, C.M., Wong, T.W., Ng, S., Lau, A., 2008. A Price too High: The Health Impacts of Air Pollution in Southern China. Civic Exchange.
- Lam, K.C, Brown, A.L., van Kamp, I., Wong, T.W., Chan, Y.K., Yeung, M.K.L., Lui, A., Law, C.W., Chung, Y.T., 2012. A large scale study of the health effects of transportation noise in Hong Kong. Proceedings of Acoustics 2012, Hong Kong.

7. Market utilization

- Goulder, L. H. and I. W. H. Parry, 2008. "Instrument Choice in Environmental Policy." Review of Environmental Economics and Policy 2(2): 152-174.
- Blackman, A. and Harrington, W. 2000. "The Use of Economic Incentives in Developing Countries: Lessons From International Experience With Industrial Air Pollution." The Journal of Environment Development 9(1): 5-44.
- Coase, R. H., 1960. "The Problem of Social Cost." Journal of Law & Economics 3(Oct): 1-44.
- World Bank, 2019. State and Trends of Carbon Pricing. Washington, D.C.

8. Environmental planning & environmental assessment

- Hopkinson, L., 2007. "Case Study of the EIA Ordinance", in B. Leverett et.al. (eds.) Idling Engine: Hong Kong's Environmental Policy in a Ten Year Stall, Chapter 10, Civic Exchange.
- Marsden, S., 2010. "Environmental Impact Assessment in Hong Kong: An evaluation of principles, procedure and practice Post1997", Asia Pacific Journal of Environmental Law 13(1): 115-133.
- World Bank, 2011. Strategic Environmental Assessment in Policy and Sector Reform. World Bank Report.

9. Field Trip to Western Waters – Impact of Infrastructure Building on Dolphins

10. Alternative management strategy

- Goulder, L. H. and Parry, I. W. H., 2008. "Instrument Choice in Environmental Policy." Review of Environmental Economics and Policy 2(2): 152-174.
- Brown, A. L. (2012). A review of progress in soundscapes and an approach to soundscape planning. International Journal of Acoustics & Vibrations, 17(2), 73-81.
- Brown, A.L., & Lam, K.C. (2015, June). Soundscape Planning as a Complement to Environmental Noise Control. Noise/News International, 23(2),14-21
- Creutzig, F., He, D., 2009. "Climate change mitigation and co-benefits of feasible transport demand policies in Beijing" Transport Research Pt. D, 14: 120-131.

11. Command and control – regulations, enforcement

Glaeser, E. L., 1999. An overview of crime and punishment, Harvard University and NBER.

- Becker, G. S., 1968. "Crime and Punishment Economic Approach." Journal of Political Economy 76(2): 169-217.
- OECD, 2006. Environmental Compliance and Enforcement in China An Assessment of Current Practices and Ways Forward. Paris, France.
- Xu, Y., 2011. "Improvements in the Operation of SO2 Scrubbers in China's Coal Power Plants." Environmental Science & Technology 45(2): 380–385.
- Wu, D., Xu, Y., Leung, Y., & Yung, C. W., 2015. "The Behavioral Impacts of Firm-level Energy-conservation Goals in China's 11th Five-Year Plan." Environmental Science & Technology, DOI: 10.1021/es5031596.

12. Control of air pollution

- Schmalensee, R. and R. N. Stavins, 2013. "The SO₂ Allowance Trading System: The Ironic History of a Grand Policy Experiment." Journal of Economic Perspectives 27(1): 103-121.
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13. Control of climate change

Dimitrov, R. S., 2010. "Inside UN Climate Change Negotiations: The Copenhagen Conference." Review of Policy Research 27(6): 795-821.

Bolin, B., 1998. "The Kyoto negotiations on climate change: A science perspective." Science 279(5349): 330-331.

United Nations, 1997. Kyoto Protocol to the United Nations Framework Convention on Climate Change.

United Nations, 2015. Paris Agreement.

United Nations, 2009. Copenhagen Accord.

IPCC, 2014. Climate Change 2014: Mitigation of Climate Change.

L. ACADEMIC HONESTY

Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at http://www.cuhk.edu.hk/policy/academichonesty/.

With each assignment, students will be required to submit a signed declaration that they are aware of these policies, regulations, guidelines and procedures.

- In the case of group projects, all members of the group should be asked to sign the declaration, each of whom is responsible and liable to disciplinary actions, irrespective of whether he/she has signed the declaration and whether he/she has contributed, directly or indirectly, to the problematic contents.
- For assignments in the form of a computer-generated document that is principally text-based and submitted via VeriGuide, the statement, in the form of a receipt, will be issued by the system upon students' uploading of the soft copy of the assignment.

Assignments without the properly signed declaration will not be graded by teachers.

Only the final version of the assignment should be submitted via VeriGuide.

The submission of a piece of work, or a part of a piece of work, for more than one purpose (e.g. to satisfy the requirements in two different courses) without declaration to this effect shall be regarded as having committed undeclared multiple submissions. It is common and acceptable to reuse a turn of phrase or a sentence or two from one's own work; but wholesale reuse is problematic. In any case, agreement from the course teacher(s) concerned should be obtained prior to the submission of the piece of work.

Form to be submitted together with your assignment:

I am submitting the assignment for:	
	pers of the group. It is hereby confirmed that the rs of the group, and all members of the group are
explicitly acknowledged/all members of the piece of work, irrespective of whether the members as a group, here submitted are acknowledged; (ii) the piece of work, or a perfect than one purpose (e.g. to satisfy the declaration; and (iii) the submitted soft copidentical to the hard copy(ies), if any, which also acknowledge that I am/we are aware of in academic work, and of the disciplinary guit policy and regulations, as a http://www.cuhk.edu.hk/policy/academichones/	e submitted is original except for source material group have read and checked that all parts of the ey are contributed by individual members or all e original except for source material explicitly art of the piece of work has not been submitted for e requirements in two different courses) without y with details listed in the <submission details=""> is has(have) been / is(are) going to be submitted. I/We the University's policy and regulations on honesty delines and procedures applicable to breaches of such contained in the University website ty/. The that all members of the group should be held ons, irrespective of whether he/she has signed the ibuted, directly or indirectly, to the problematic</submission>
_	hout a properly signed declaration by the student by all members of the group concerned, will not be
Signature(s)	Date
Name(s)	Student ID(s)
Course code	Course title