

**DEPARTMENT OF ECONOMICS  
DELHI SCHOOL OF ECONOMICS  
UNIVERSITY OF DELHI**

**Minutes of Meeting**

Subject : B.A. (Hons.) Economics, Sixth Semester – Optional Paper (DSE)  
Course : (xii) Environmental Economics, CBCS  
Date of Meeting : 8<sup>th</sup> January, 2018  
Venue : Department of Economics, Delhi School of Economics, University of  
Delhi, Delhi – 110 007  
Chair : Prof. Shreekant Gupta

**Attended by:**

<b>Sr. No.</b>	<b>Name</b>	<b>College</b>
1	Kavita Bangarwa	ARSD College
2	Surajit Deb	Aryabhata College
3	Dorothy Roy Chowdhury	Daulat Ram College
4	Ayushi Basoya	Shyama Prasad Mukherjee College
5	Bhavna Seth	Dyal Singh College (M)
6	Srishti Gupta	St. Stephens College
7	Rashmi Chaudhary	Kalindi College
8	Akhilesh Kumar Yadav	Satyawati College (E )
9	Chandan Singha	Hindu College
10	Sarweshwar Kumar Gautam	Satyawati College
11	Renu Sinha	Satyawati College (M)
12	Rashmi Sharma	Delhi College of Arts & Commerce
13	Reetika Rana	Shivaji College
14	Deepti Sethi	Janki Devi Memorial College
15	Jasmin	Jesus and Mary College

**Readings:**

Charles Kolstad. *Intermediate Environmental Economics*, Oxford University Press, 2nd edition (2012). [[Indian reprint available.](#)]

Roger Perman, Yue Ma, James McGilvray and Michael Common. *Natural Resource and Environmental Economics*, Pearson Education/Addison Wesley, **4th edition** (2011).  
[Available at RTL]

Also see:

<http://www.pearsoned.co.uk/highereducation/resources/permannaturalresourceandenvironmentaleconomics4e/>

Robert N. Stavins (ed.). *Economics of the Environment: Selected Readings*, W.W. Norton, 6th edition (2012). [Available at RTL]

## TOPIC WISE READINGS

All chapters below refer to Kolstad (2012). Entire chapter has to be covered except where sections to be skipped are specifically mentioned. The number of lectures suggested against each topic are indicative.

**1. Introduction (approx. 9 lectures):** What is environmental economics; review of micro economics and welfare economics.

Don Fullerton and Robert Stavins (1998). "[How Economists See the Environment.](#)" *Nature*, Vol. 395, Oct 1, 1998, pp. 433-434.

[Reprinted as Chapter 1 in Stavins (2012).]

Chapter 1: Skip Section III which is to be done later in Topic 4.

Chapter 2

Chapter 3: Do Sections I, II, III (skip section III.B pp. 47-52) and IV.

Chapter 4

Supplementary Reading:

Perman et al. (2011). Chapters 3 and 4.

### Overview of environmental problems in India [required]

[Three Year Action Agenda](#) (NITI Aayog, April 2017): Chapter 23 (Environment and Forests)

[Economic Survey 2017-18 Volume 2, Chapter 5 p. 77-78](#) (Air Pollution in Delhi).

[State of Environment Report: India 2009](#) (Ministry of Environment and Forests, Government of India, 2009): [Chapter 2 \(State and Trends of the Environment\): Land, Air, Water, Biodiversity \(p. 9 to 71\)](#).

[Report to the People on Environment and Forests: 2010-11](#) ((Ministry of Environment and Forests, Government of India, 2011): Chapter 2 (State of the Environment) (p. 11-25).

**2. The Theory of Externalities (approx. 5 lectures):** Pareto optimality and market failure in the presence of externalities; property rights and the Coase theorem.

Chapter 5: Skip Section V (Pricing Public Goods and Bads)

Chapter 13: Do Section I only (Coase and the Assignment of Property Rights)

Supplementary Reading:

Ronald Coase "The Problem of Social Cost" [Reprinted as Chapter 2 in Stavins (2012).]

**3. The Design and Implementation of Environmental Policy (approx. 17 lectures):**

Overview; Pigouvian taxes and effluent fees; tradable permits; choice between taxes and quotas under uncertainty; implementation of environmental policy.

Chapter 1: Do Section III (Environmental Regulation)  
Chapter 11: Skip Sections II and VI  
Chapter 12: Do all sections  
Chapter 13: Do Sections II.A and II.B  
Chapter 14  
Chapter 15: Do Sections I and II (two typos on p. 303 – check with instructor)

Salvatore Di Falco (2012). “[Economic Incentives for Pollution Control in Developing Countries: What Can We Learn from the Empirical Literature?](#)” *Politique Agricola Internazionale (PAGRI)*. 2012, Vol. 2, No. 2, p. 7-24.

Supplementary Readings:

1. Perman et al. (2011). Chapter 6.
2. Allen Blackman and Winston Harrington (2000). “[The Use of Economic Incentives in Developing Countries: Lessons From International Experience With Industrial Air Pollution](#),” *Journal of Environment and Development*, Vol. 9, No.1, p. 5-44.
3. Michael Sandel (and replies to Sandel) “It’s Immoral to Buy the Rights to Pollute” [Reprinted as Chapter 18 in Stavins (2012).]

**4. International Environmental Problems (approx. 8 lectures):** Trans-boundary environmental problems; economics of climate change; trade and environment.

Aldy, Joseph et al. “[Designing Climate Mitigation Policy](#),” *Journal of Economic Literature*, Vol. 48, No. 4 (December 2010), p. 903-934. [Re-printed in Stavins (2012).]

Richard Newell, William Pizer and Daniel Raimi (2013). “[Carbon markets 15 years after Kyoto: Lessons learned, new challenges](#),” *Journal of Economic Perspectives*, Vol. 27, No. 1, p. 123-46.

Supplementary Readings:

1. Perman et al. (2011). Chapter 9 (p. 302-341).
2. [Economic Survey 2016-17 Volume 2, Chapter 5](#) Climate Change, Sustainable Development and Energy.

**5. Measuring the Benefits of Environmental Improvements (approx. 14 lectures):** Non-market values and measurement methods; risk assessment and perception.

Chapter 7: Skip Section VI (Discrete Choice). Do all other sections.  
Chapter 8: Do p. 147 and Section IV (skip section IV.E).  
Chapter 10.

**6. Sustainable Development (1 lecture):** Concepts; measurement.

Geoffrey Heal (2012). “[Reflections—Defining and Measuring Sustainability](#)” *Review of Environmental Economics and Policy* Vol. 6, No. 1 (winter 2012), p. 147–163.

Supplementary Readings:

1. Robert Solow (1992). “[An Almost Practical Step towards Sustainability](#),” Resources for the Future (RFF) 40<sup>th</sup> anniversary lecture.
2. Robert Solow (1992). “[Sustainability: An Economist’s Perspective](#)” [Re-printed as Chapter 28 in *Economics of the Environment: Selected Readings* (2012).]
3. Perman et al. (2011): Chapters 2 and 19.
4. [http://www.moef.nic.in/sites/default/files/Sust\\_Dev\\_Stocktaking.pdf](http://www.moef.nic.in/sites/default/files/Sust_Dev_Stocktaking.pdf)
5. [Economic Survey 2016-17 Volume 2, Chapter 5](#) Climate Change, Sustainable Development and Energy.

**Assessment:**

1. Internal evaluation will comprise one class tests (10 marks) and 5 marks for attendance. Remaining 10 marks can be an additional class test or paper-cum-presentation.
2. The end semester exam (75 marks) will comprise numerical and other questions.