

# Water Resources of the Middle East -- Negotiation, Policy and Management

Dr Clive Lipchin

3 academic hours, 3 credits

## Course Description

This course will introduce the major issues hindering or allowing for efficient water management in the Middle East. As water scarcity is a reality in the region, it is critical to explore the ways and means for sustainable management of this resource in the face of growing demand and dwindling supply and the associated regional plans for water allocation among the countries of the region. The course will concentrate on the Jordan River Basin and associated groundwater resources and how these waters are managed and shared. Although the basin is shared by Israel, the Palestinian Authority, Jordan, Syria and Lebanon, the course will focus on the first three riparians. The goal of the course is to provide students with an overview of the challenges facing policy makers and water experts in effectively managing these resources and negotiating over their equitable allocation. The course will include an overnight field trip to sites within the Jordan River basin.

## Grading components

Short paper	5%
Midterm	40%
Final Group presentations	45%
<u>Participation</u>	<u>10%</u>
Total	100%

## Course Texts:

Cech, T. V. (2003) Principles of Water Resources: History, Development, Management and Policy. John Wiley & sons, Inc.

Lipchin, C., Pallant, E., Saranga, D. and Amster, A. (2007) Integrated Water Resources Management and Security in the Middle East. Springer Publishers, the Netherlands

Lipchin, C. Sandler, D. and Cushman, E. (2009) The Jordan River and Dead Sea Basin: Cooperation Amid Conflict. Springer Publishers, the Netherlands

*Additional required readings will be provided for each week.*

## Course schedules and readings

### Lecture 1

**Brief Anthropocentric History of Water Resources in the World**

**Lecturer Dr Clive Lipchin**

Readings

Cech: Chapters 1 and 2

## Lecture 2

### **Defining Water Scarcity: Definitions, Perceptions and Projections**

**Lecturer Dr Clive Lipchin**

Readings

UN Water and FAO. (2007) *Coping with Water Scarcity: Challenge of the 21<sup>st</sup> Century*.  
2007 World Water Day.

## Lecture 3

### **Overview on Conflict Negotiation and Cooperation over Shared Waters (US/Canada Case Study)**

**Overview of water conventions**

**Lecturer Dr Clive Lipchin**

Readings :Wouters, P. (2000) *The Legal Response to International Water Scarcity and Water Conflicts: The UN Watercourses Convention and Beyond*.

[http://www.africanwater.org/pat\\_wouters1.htm](http://www.africanwater.org/pat_wouters1.htm)

Annin, Peter. (2006) *The Great Lakes Water Wars*. Island Press.

## Lecture 4

### **Hydrology**

**Guest Lecturer Noam Weisbrod, Associate Professor, Hydrology, Ben-Gurion**

University. Readings

Cech: Chapters 3 and 4

## Lecture 5

### **Regional Water Resources: Review of Major Water Sources of the Middle East Water Resources and Management in Israel**

**Lecturer Dr Clive Lipchin**

Readings: Tal, Alon. (2006) *Seeking Sustainability: Israel's Evolving Water Management Strategy*. Science. 313(25): 1081-1084. August.

Beyth, M. *Water Crisis in Israel*.

Netanyahu, Sinaia. (2007) *Water Development for Israel: Challenges and Opportunities*. In *Integrated Water Resources Management and Security in the Middle East*. **(SKIM ONLY)**

## Lecture 6

### **Water Resources and Management in Jordan**

**An Introduction to the Israel-Jordan peace treaty on water**

**Film: Jordan's Water Crisis**

**Lecturer Dr Clive Lipchin**

Readings :Mcilwaine, Stephen. (2009) *Managing Jordan's Water Budget: Providing for Past, Present, and Future Needs*. In *The Jordan River and Dead Sea Basin*.

Jordan Business Magazine. (2008) *In Troubled Waters*. Thursday, September 11, 2008.

<http://www.arabenvironment.net/archive/2008/9/673235.html>

Zawahri, Neda A. (2009) *Attempts to Govern the Jordan River System*.

## Lecture 7

**MIDTERM PAPER DUE**

Water Resources and Management of the Palestinian Authority  
Guest Lecturer-Monther Hind, Palestine Wastewater Engineering Group

**Lecturer Dr Clive Lipchin**

Readings :Daibes-Murad, Fadia. (2009) A Palestinian Socio-legal Perspective on Water Management in the Jordan River-Dead Sea Basin. In *The Jordan River and Dead Sea Basin*. Assaf, Karen. (2009) Managing Palestine's Water Budget: Providing for Present and Future Needs. In *The Jordan River and Dead Sea Basin*.  
Hassan, M. et. al. (2010) Palestinian Water I: Resources, Allocation and Perception  
*Geography Compass* 4/2 (2010): 118–138.

**Lecture 8**

**Water Trip- Dead Sea Basin**

**Lecturer Dr Clive Lipchin**

**Lecture 9**

**Alternative Management Options for the Dying Dead Sea (Red Sea-Dead Sea conduit and other alternatives)**

**Lecturer Dr Clive Lipchin**

Readings: Raz, Eli. (2009) The Future of the Dead Sea: Is the Red Sea-Dead Sea Conduit the Right Solution? In *The Jordan River and Dead Sea Basin*.  
Abitbol, E. (2009) Developing Water and Marginalizing Israel/Palestinian Peace: A Critical Examination of the Red Sea-Dead Sea Canal Feasibility Study Process. *Journal of Peacebuilding & Development*, Vol. 5 NO. 1.  
Sharp, Jeremy M. (2008) The "Red-Dead" Canal: Israeli-Arab Efforts to Restore the Dead Sea. Congressional Research Service Report RS22876. Foreign Affairs, Defense, and Trade Division. May 13, 2008.  
McCaffrey, S. C. (2006) The Shrinking Dead Sea and the Red-Dead Canal: A Sisyphean Tale? *Global Business & Development Law Journal*, Vol.: 19.

**Lecture 10**

**Gender and Water**

**Lecturer Dr Clive Lipchin**

Reading :Gender and Water Alliance. (2006) Mainstreaming Gender in Water Management. UNDP, Resource Guide. Version 2.1, November. (**SKIM**)

**Lecture 11**

**An Integrated Water Resources Approach for the Water Resources of the Middle East  
Multilateralism, regional water commissions, study and research.**

**Environmental flows: Impacts of climate change on water resources.**

**Lecturer Dr Clive Lipchin**

Readings : Fischhendler, I., and T. Heikkila. (2010) Does integrated water resources management support institutional change? The case of water policy reform in Israel. *Ecology and Society*. 15(1): 4.  
Asaf, Lior et. al. (2007) Transboundary Stream Restoration in Israel and the Palestinian Authority. In *Integrated Water Resources Management and Security in the Middle East*.

## Lecture 12

**Film: Blue Gold**

**Lecturer Dr Clive Lipchin**

Readings :Ibrahim Abu-Shams and Akram Rabadi. (2003) Commercialization and Public-Private Partnership in Jordan. *Water Resources Development*, June. 19(2): 159-172.

Braunstein, Joy. (2007) Trading the Rain: Should the World's Freshwater Resources be an Internationally Traded Commodity? In *Integrated Water Resources Management and Security in the Middle East*.

Tagar, Zecharya; Becker, Nir; and Bromberg, Gidon. (2004) Whose water is it? Privatization of Water and Sewage Services, Sea Water Desalination and Public Participation. *Friends of the Earth Middle East*.

<[http://www.foeme.org/index\\_images/dinamicas/publications/publ32\\_1.pdf](http://www.foeme.org/index_images/dinamicas/publications/publ32_1.pdf)>

## Lecture 13

**Class group presentations**

**Lecturer Dr Clive Lipchin**