(2 credits)

001-2-5029

Weekly Lecture Hours	Exercise	Laboratory	Field Trip
2			

Lecturer: Prof. Noam Weisbrod

The purpose of this document is to highlight the curriculum for a proposed course in "Rural Water Development."

The benefits of such a course are threefold. First, it will expose students to global water issues and equip them with a perspective that takes into account the realities of these issues. While many of the United Nations' Millenium Development Goals, specifically to reduce by half the proportion of people who live on less than a dollar a day, and of those who go hungry, seem to be failing, more attention is being given to the global water and food crisis. Three of every four people in developing countries live in rural areas—2.1 billion people living on less than $2 a day and 880 million on less than $1 a day[i].

For these populations, clean water is often a luxury and disease, food insecurity and poverty often hold them in a vicious cycle. For example, water-related disease is the #1 killer in Africa; more people are dying from water-related disease than from AIDS and cancer combined in these countries. This course will investigate global water problems and how water development can address these issues. This is an important and we argue essential part of any water management education.

Currently, the water resources program at BIDR (and anywhere else in Israel) does not deal with these types of problems. We are convinced that exposure of our water resources/hydrology graduate students to the water-related problems that are facing billions of people living in rural areas in developing countries is essential. We believe that ZIWR, being the largest water research institute in Israel, should lead the efforts of exposing Israeli students to the water problems in rural areas in developing countries.

Second, the course proposes to link the strengths of ZIWR and Israel in water management experience overseas. This will broaden the horizon of the students and encourage the expansion of water development technology and know-how behind the traditional confines of the classroom. Specifically, guest lecturers from various Israeli institutions will share their real-world experience with the class.

While this course is novel for the ZIWR, similar courses are springing up in various universities overseas. Specifically, the University of Nevada-Reno, University of Colorado-Boulder and University of Notre Dame have developed similar courses to engage students with global water and poverty. Other universities, such as Stanford and Cornell, are already working together with NGO's in different countries as part of their graduate students' projects.

Curriculum:

The course consists of 10 to 11 classroom lectures of 2 hours each. Three to four guest lectures will present different points of view regarding water problems in developing countries.

Classroom lectures:

Week 1
Rural Water: Overview

Reading:
UN Human Development Report. Beyond Scarcity: Power, poverty and the global water crisis (2006), "Overview," pages 1-24

UN Millenium Development Goals
www.un.org/milleniumgoals

Weeks 2 and 3
Rural Water and Agriculture

Reading:
FAO, Water and the Rural Poor: Interventions for improving livelihoods in Sub-Saharan Africa (2008), Chapter 2, "Water, agriculture and rural livelihoods" and Chapter 4, "Interventions in water to improve rural livelihoods", pages 3-15 and 41-72.

World Bank, World Development Report: Agriculture for Development (2008), Overview, pages 1-18

Polak, Paul (International Development Enterprises) Out of Poverty: What works when traditional approaches fail, Chapter 7, "A new agriculture for one-acre farms", pages 115 - 136

Guest Lecture: Danny Ariel, Africa Operations, Head, Netafim

Week 4
Rural Water and Health

Reading:
UN Human Development Report: Beyond Scarcity: Power, poverty and the global water crisis (2006), Chapter 2, "Water for human consumption" and Chapter 3, "The vast deficit in sanitation", pages 80-128.

Week 5
Rural Water and Poverty

Reading:
World Bank, World Development Report: Agriculture for Development (2008), Chapter 3, "Rural households and their pathways out of poverty," pages 72-94

Polak, Paul (International Development Enterprises) Out of Poverty: What works when traditional approaches fail, Chapter 11, "Taking Action to End Poverty" and Chapter 12, "Bahadur and his family move out of poverty" pages 183-211.

Week 6
Rural Water and Developing Countries

Guest Lecture: Dr. Tamar Golan, Ben Gurion University of the Negev

Week 7
Rural Water and NGO's (or What are the Solutions?)

Reading:
Polak, Paul (International Development Enterprises) Out of Poverty: What works when traditional approaches fail, Chapter 6, "Affordable Small-plot Irrigation" pages 95-115.

Team Today and Tomorrow: Monthly Update

Water for All, International website.

Week 8
Rural Water and Government

Guest Lecture: Such as from MASHAV OR Someone from TAHAL

Week 9
Rural Water Development: Hand-drilled Boreholes and Hand-dug wells

Weeks 10 and 11
A focus on a target county (change every year)

Reading:
According to the country to be selected

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[i] World Bank, World Development Report, "Agriculture for Development," 2008.