CONTRACT NO. AID/NE-C-1657

PROJECT NO. 263-0026/263-0005

REPORT ON ECONOMIC ANALYSIS

OF

AGRICULTURAL PROJECTS COURSE

Dr. Fred J. Hitzhusen

From September 6, 1979 through October 5, 1979, I was on an AID lecture assignment with an "Economics of Agriculture Projects Course" in Cairo, Egypt. The course was taught at the Institute of National Planning and co-sponsored by the Egyptian Ministry of Agriculture. Other lecturers also participated in the five week course and two week field workshop which ran from September 2, 1979 through October 17, 1979. The primary course objective was to develop project economic analysis and evaluation skills among Egyptian professional staff located in various organizations and to assist the Institute of National Planning in planning for further development of such skills.

A total of thirty-six (36) Egyptian professionals from eight agencies of the national government participated in the course. Representation by agency was as follows: Ministry of Agriculture (13), Institute of National Planning (5), Ministry of Planning (5), Ministry of Land Reclamation (5), Institute for Agricultural Economic Research (4), Ministry of Irrigation (2), Central Bank for Agricultural Development (1), and Central Organization for Organization and Administration (1). Twenty-seven of the regular participants had B.S. degrees, one had an M.S. degree and two had Ph.D.'s. Several other Egyptian professionals (primarily from the Institute of National Planning) sat in on selected sessions of the course.

Participants varied in their ability to comprehend and communicate in English. Their backgrounds and previous experience in project analysis also varied considerably. However, most of the participants demonstrated a high level of dedication and enthusiasm for the course subject matter, case exercises, etc. I was most impressed with this fact, and it made my association with the group a very enjoyable one.

It is my impression that many of the participants would be interested in additional instruction in project analysis. However, they vary considerably in their current level of understanding. It would seem most helpful to select a small sub-group of the more advanced participants from the agencies with primary analytical responsibilities for an advanced workshop on project analysis. These professionals could in turn assist with future project analysis efforts and serve as ongoing sources of expertise in their respective agencies.

The project analysis course followed the format and used many of the case study exercises developed by staff at the Economic Development Institute of the World Bank. The exercises are generally quite good, but not enough time was allocated to each exercise to complete the calculations and have ample discussion for a high level of comprehension. Because the EDI case studies are "real world" and detailed, the calculations are quite time consuming. Considerable time is required for the students to get familiar with the details (currency, enterprises, constraints, etc.) of each new case.

It is also my impression that more attention needs to be given to energy and technological externalities in agricultural project analysis.

Rapidly increasing prices and the potential physical or politically motivated decline-in or shut-off of finite supplies of fossil fuels makes for a very uncertain energy future. Agriculture is a relatively heavy consumer of energy, particularly, where irrigation and heavy fertilization are concerned, but may also become a producer of energy (biomass) as fossil fuel prices continue to rise. The High Aswan Dam in Egypt is frequently used to illustrate technological externalities such as increased salinization and water logging resulting from a large project. Physical interdependence of production and/or utility functions which is not priced results in technological externalities (both diseconomics and economics) which should be included in the economic analysis of projects.

I would be interested in securing some funding to develop materials on the foregoing issues in project analysis. Output might include the following:

1. A paper or course notes on alternative ways of incorporating an uncertain energy future (including agriculture as a potential producer of energy) in the economic analysis of agricultural projects.

2. A paper or course notes defining and illustrating how various types of technological externalities can be incorporated in the economic analysis of agricultural projects.

3. A simulated case study with a limited number of enterprises and relatively short time horizon to simply illustrate each of the analytical techniques involved (including energy uncertainty and technological externalities) in going from financial to social cost-benefit analysis.

TRAVEL AND WORK ITINERARY

Dr. Fred J. Hitzhusen

September 6	Depart Columbus 3:07 PM TWA 222
September 7	Arrive Cairo 2:30 PM TWA 800
September 8-12	Lectures on farm income analysis, budgeting, financial and economic analysis, technological externalities
September 13-14	Preparation of lectures and case
September 15-19	Gambia case study and lectures on credit repayment
September 20-21	Preparation of lectures and cases
September 22-26	Lecture on debt capacity and case studies on agricultural credit and the El Mullak Dairy Farm
September 27	Field trip to desert land reclamation, irrigation and livestock projects
September 28-29	Vacation days - travel to Luxor
September 30	Prepare lectures and case studies
October 1-3	Marketing and agricultural investment budget game cases, lecture on uses and limits of project analysis and review session
October 4	Travel to Paris, France
October 14	Return to Columbus 10:30 PM