

Economic Analysis of Climate Changes on Agricultural Production Systems and Identification of Policy and Institutional Measures in Cukurova and Central Anatolia Regions.

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1. Introduction

The purposes of this subproject are:

- a) to identify the effect of global warming on economic structure and economic results of farms,
- b) to determine the impact of global warming on soil fertility, crop yields, cropping patterns, water availability/use/conservation, new technology,
- c) to understand farmers' perception and behavior concerning natural resources and agricultural production.
- d) to identify necessary policies and institutional measures to cope with global warming.

2. Material and Method

2.1. Material

The main material that is being used in this research is obtained from the questionnaires that are applied to the farmers by the research team. The questionnaire was pre-tested in the two research provinces before its application to sample farmers. Also some secondary data such as reports and statistics are being used to facilitate and to support the research.

2.2. Method

Primary data are collected from two different geographic zones: the first zone is subtropical zone which covers the Çukurova region that is in the east Mediterranean region. The second region is selected

from Central Anatolia which represents the continental climate. Adana province was selected to represent the subtropical zone and Konya province was selected to represent continental climate.

3. Field work between 2002 and 2004

Two irrigated and two rainfed villages were selected from the plain part of Adana province to represent subtropical zone. Two irrigated and two rainfed villages were selected from the plain part of Konya

province in the Central Anatolia and questionnaire were applied to the farmers in 2002-2004 years.

3.1. Questionnaire Application to Farmers in 2002-2004

The farms in the villages were stratified according to farm size groups. From each group a representative number of farmers were interviewed. The farmers were selected randomly and those who are willingly and voluntarily cooperate with the researches were interviewed.

4. Analysis of Data

Appropriate computer programs such as SPSS will be used in the analysis of the data. These data have been entered into computer and agricultural structure, income-expenses have been calculated for each year.

We have examined the family size, land tenure and

Table 1 Number of interviewed farmers in 2002-2004

	2002		2003		2004	
	ADANA	KONYA	ADANA	KONYA	ADANA	KONYA
Irrigated	51	41	62	24	36	34
Rainfed	50	46	56	17	33	32
TOTAL	101	87	118	41	69	66

land use by crops of the interviewed farmers as economic structure indicators of the research area for 2003-2004

Average agricultural income on irrigated farms is significantly higher than rainfed farms in Adana and Konya. It is interesting that the average income figures on irrigated farms in Adana and Konya are quite close to each other.

5. Planned work for 2005

Presently we are processing 2003 data. Meanwhile we have started preparing database for 2004 data. In the light of the discussions at the workshop of Cappadocia, it was decided to make some changes in the structure of the questionnaire that has been applied for 3 years. Now we are working on the new questionnaire and as soon as we develop it, we will test it before its application.