

Family Labor Economics in the Egyptian Agriculture

Summary and Conclusions
Economics of Family Labor in Egyptian Agriculture
The importance of studying family labor due mainly to its important role in the process of both economical and agricultural development, besides the participation of family labor in the agricultural activity and the agricultural income. The problem of the study is represented in both the seasonal aspect and the decrease of the agricultural income as well as in the small and insufficient size of the production units. As a consequence the family labor began to seek off-farm job opportunities, this also gave rise to the increase of the lack of specialization. Another point that has to be taken into consideration is that in spite of the important and free family labor contribution in the agricultural production, it is not considered to be one of the main constituents of the family agricultural income, and this is what explains the under-estimated vision of the factual family income. This study is a trial to discuss on-farm and off-farm family income and to estimate the participation of family labor in the agricultural production.¹ In order to achieve this objectives, the study is going to clarify five main chapters, in addition to the introduction, abstract in both Arabic and English, appendix including the applied questionnaire and list of references. Introduction presents the problem, the objectives of the study, sources of data and applied methods of analysis. Data are obtained from two sources, the first source is the published time series data during the period 1980/2002 from the Ministry of Agriculture bulletins and the Central Agency for Public Mobilization and Statistics and ministry of planning and the second one is cross-section data through utilizing the application of the questionnaire in the year 2002/2003. Descriptive and quantitative analysis of statistical data are carried out. The relations among all variables are expressed using mathematical methods. Simple and multiple regression coefficients are calculated. The first chapter deals with the literature review of the previous studies concerning this study and the most important results of the previous studies. The second chapter includes two parts, the first part handles the current situation of human labor in the Egyptian agriculture. The second part concerns the studied sample, it presents causes for choosing El-Sharkia and El-Kalyoubia governorates as a research field. The studied sample is multi-stage random sample, the total sample size is 220 observations selected from eight villages, four villages from El-Sharkia governorate El-salhia (1) and El-Azzazy were randomly chosen from Fakoose were markaz, El-Ekhyua and Sauod were randomly chosen from El-Hissanya markaz, and four villages from El-Kalyoubia governorate, MeetKenana and Moshtohor were chosen from Tookh markaz, Shiblinga and Marsafa were chosen from Benha markaz. Data were collected from the chosen villages according to the account number of holder and total lands hold of studied crops (wheat, rice, maize, cotton). The sample selected from villages was classified into three categories; less than one feddan, one feddan to less than three and more than three feddan. This part of the second chapter handles some of the most important socioeconomic characteristics of the studied sample. The social characteristics include: Age structure of both farmers and their families. Educational status of both farmers and their families. Full-time work of farmers in agriculture. Farmer's experience in agriculture. Meanwhile, the economical characteristics include: Free family labor in agriculture on-farm. Family labor off-farm. Off-farm family income include: Family income gained from working for others in agriculture with wages. Family income gained from working in other non-agricultural occupations. The third chapter concerns with the resources of family income. It handles family

income on-farm gained from plant activity, livestock activity and other agricultural activities and family income off-farm gained from working for others in agriculture with wages income gained from renting agricultural assets, income from working in other non-agricultural occupations, and other non-agricultural activities income gained from stipend and support, and income gained from non-agricultural assets. The fourth chapter deals with participation of free family labor on-farm in agricultural income. It deals with participation of family labor for livestock production and plant production according to the type of different agriculture operation for studied crops (wheat, rice, maize, cotton), according to the type of studied crops, according source (family, hired) and according by gender (men, women and child) and handles the agricultural income saved from free labor family on farm, and estimating the factual income family. The fifth chapter handles the most important factors which affect on-farm family labor for plant and livestock production and the most important factors which affect family labor for others in agriculture and family labor in other occupations, this chapter handles some of the reasons that lead farmers to leave the farm. The results of the study indicate that the percentage of workers in agriculture sector decreased from about 36.3% in 1981 to 25.8% in 2002 of the total number of labor force. The percentage of agriculture workers decreased from about 39.5 % in 1981 to 28.2% in 2002 of the total number of national workers and the percentage of total agriculture wages decreased from 17.48% in 1981 to 12.87% in 2002 of the total national wages. The results of the studied sample indicate that the total family income is approximately L.E. 2001520, and the family agricultural income is about L.E. 879528, representing about 43.9% of the total family income, and the average of agricultural income is about L.E. 2556.8, while the non-agricultural income is about L.E. 1121992, representing about 56.1% of the total family income, and the average of non-agricultural income is about L.E. 4506.5. The percentage of on-farm family agricultural income is about 70.3% for plant activity, 10.6% for livestock activity, 8.1% for poultry activity and 10.9% for other agricultural activities of the total on-farm family agricultural income. Meanwhile the percentage of family agricultural income gained from labor working for others in agriculture is about 42.1%, from the total family agricultural off-farm and about 23.96% gained from renting agricultural machines and about 33.99% gained from renting agricultural land. The percentage of family non-agricultural income for non-agricultural occupation is about 93.1%, from the total off-farm family non-agricultural income for stipend and support is about 2.3%, the percentage of family non-agricultural assets is about 1.6% and for non-agricultural activities is about 2.9% from the total off-farm family non-agricultural income. The results of the study indicate that the percentage of on-farm and off-farm family agricultural income is about 43.9% from the total family income, the percentage of off-farm family non-agricultural income is about 56.1% from the total family income and the percentage of off-farm family agricultural and non-agricultural income is about 65.4% from the total family income. The study showed that the percentage of on-farm family labor participation in agricultural activity for plant production is about 55.9%, of the total participation of on-farm family in agriculture, but for livestock production is about 44.1% of the total participation of on-farm family in agriculture. At the level of aggregate sample, the results of this study indicate that the agricultural income earned from on-farm and off-farm is about L.E. 879528 representing about 90% from the total agricultural income, but the agricultural income saved from free on-farm labor family estimated by L.E. 97899 representing about 10% of the total agricultural income. The study assumed some factors which affect on-farm and off-farm family labor. The study revealed that the most important factors which has negative effect and has statistical significance on the on-farm family labor for plant production are the number of day-work of family labor working for others in agriculture, the number of day-work of on-farm family labor for livestock and the income earned from another non-agricultural occupations, the number of educated members of family, while the most important factor which has positive effect and has statistical significance is cultivated area. But the most important factors which has positive effect and has statistical significance on the on-farm family labor for livestock production are the number of workers in agriculture, and the number of farm animals, while the most important factor which has negative effect and has statistical significance are the number of day-work of family labor for others in agriculture, and the income from the plant production. The study indicated that the most important factors which has negative effect and has statistical significance on the off-farm family labor working for others in agriculture are the

number of day-work of on-farm family labor for plant and livestock production, and the number of farm animals, while the most important factor which has positive effect and has statistical significance is the number of workers in agriculture. But the most important factors which has negative effect and has statistical significance on the off-farm family labor in non-agricultural occupations are the number of day-work of on-farm family labor for plant and livestock production, while the most important factor which has positive effect and has statistical significance is the number of educated members of family. The study showed that the most important reasons for leaving the farm are the decreased of on-farm agricultural income, small size of the farm, the increase of off-farm non-agricultural income respectively. The study recommends this points: Encouraging the integrated family farm (plant, animal and poultry production as well as small food industries which are in relation to farms). Encouraging farmers -from the very beginning- to increase poultry production by providing new strains, medicines and rations. Providing job opportunities for women on-farm to increase the family income.