

## Investigating Factors Affecting Poverty in Rural Areas of Kohgiluyeh and Boyerahmad Province

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### **Abstract**

In this study, the situation of poverty and its effective factors were investigated in rural regions of Kohgiluyeh and Boyerahmad Province. The statistical population included rural region of province and 403 families of them have been selected using Patten sampling table and clustered multi-stag sampling technique. The results indicated that the monthly alimentary poverty line, non-alimentary poverty line and total poverty line are 337.2, 195.6 and 532.8 thousand Rails in the year of 2009 respectively. Also, head count, gap and the intensity of alimentary poverty are 31.3, 9.6 and 4 percent and proportion of capitation, gap and the severity of alimentary poverty are 32.3, 8.6 and 6.3 percent respectively. According to the results, It can be said that factors such as family dimension, proportion of persons who have income in the family, proportion of literate persons in the family, distance of the village from the center of township, use of the supporting assistances, banking facilities, ownership of land, having bath, number of rooms, ownership of tractor, social welfare and membership in cooperation were the most important factors affecting poverty in rural region of Kohgiluyeh and Boyerahmad Province.

**JEL Classification:** C21, D12, I32

**Keywords:** Poverty, Rural Areas, Kohgilouyeh and Boyerahmad

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## An Analysis of the Effect Reducing the Food Subsidy on Income Inequality

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### Abstract

Nowadays in our country a great amount of the subsidy goes to food. Because of the high population growth and the good and service price increase in the world market a considerable financial pressure is imposed upon the government. Therefore taking an appropriate policy to face this problem is inevitable, so the purpose of this study is to examine the effects of the income inequality caused by the reducing the subsidy of the main goods on Iran's rural and urban consumers. The effects of the income inequality caused by the price increase of the selected goods was examined through different scenarios of reducing the subsidy with the two "g" and "h" distribution indices and Atkinson index. Studying the changes of the income distribution indexes shows that the scenario of increasing the price of all goods simultaneously influences the urban households of the average income group more than the rural consumers, while the effect on the households of the average income group is more than the effect on the low income group households in both rural and urban areas.

**JEL classification:** D1, D31

**Key words:** food subsidy, income inequality, consumers, Iran

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## Economic Assessment of Production Cooperatives in Khuzestan Province

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### Abstract

According to characteristics of cooperatives systems in attracting local participations, these systems can be seen as one way of achieving the objectives of rural development and agricultural sector. Among the most important goals in the production cooperatives is increase efficiency in production units. According to, in this study which was conducted in the 1389-1388, efficiency of cooperative production in Khuzestan province has been studied, to assess the economic efficiency of these units. In this study, the estimated production frontier function to measure efficiency and its determinants among farmers has been paid. The study results show that the average efficiency of the production cooperatives is 79 %. Also the results indicate that the variables; number of members, acreage and number of pieces have a negative effect on production cooperative efficiency. But the effect of variables such as access to public funds, the amount of services produced by cooperatives, education level and experience of cooperative's manager and the investment manager of cooperative's capital level can increase production cooperatives efficiency level.

*JEL:* C01, C21, D22

*Keywords:* Co-production, Production Function Frontier, Efficiency, Farmers, Khuzestan

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## Investigating Impact of Credit on Agricultural Employment and Demand for Credit in Fars Province

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### **Abstract**

Lack of access to adequate and affordable credit for investment is a handicap for farmers. Due to the increasing needs of farmers to credit, determining their credit demands, recognizing the impacts of credit on employment as well as willingness of farmers to obtain loans from informal sources are important. In this study, The results reveal that there is no causality relationship between employment and credit but employment is caused by credit. The results also indicate a correlation between demands for credit and output prices. Farmers are more motivated to invest on their activities with increasing the prices. Demand for credit has an indirect relationship with interest rate; however, interest rate does not directly impact the demand for credit.

***JEL Classification:*** D3, D14, G21

***Keywords:*** Employment, demand for credit, informal loans sources, Agriculture Sector

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## Valuation of Carbon Dioxide Emissions Obtained from Agricultural Development in Iran

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### Abstract

Energy has special importance in the agricultural sector as an input. The initial estimates show that agricultural activities cause a quarter source of pollutant emissions in the world. Carbon Dioxide is the most important greenhouse gas which has played the main role in the absorption of infrared radiation of the atmosphere in past decades. Given the importance of the environment and the lack of proper analytical methods for environmental policymaking, presentation of models for assessing the relationship between economic activities and the environment seems to be very important and necessary. Hence, the detrimental effects of Carbon Dioxide as one of the most important greenhouse gases originating in the Iranian agricultural sector were evaluated in this study. For this purpose, the concept of shadow price of this pollutant was used. Results indicated that each kilogram Carbon Dioxide risen from fuel consumption in the agricultural sector, harms about 141 *RLS* in average per annum for the period of 1992-2010. In other words, the Carbon Dioxide emissions from the Iranian agricultural activities would incur about 1,744 billion *RLS* per year on average. Also, the results showed that cost of each kilogram of this pollutant has been increased significantly in the last two decades on average and therefore, it seems that providing the required inputs to control Carbon Dioxide emissions in the Iranian agricultural sector by granting environmental subsidies is inevitable.

**JEL Classification:** Q51, C02, D22

**Keywords:** Energy Carriers, Greenhouse Gases, Shadow Price, Distance – Technology Function

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## Optimal Water Allocation of Chahnimeh to Sistan Agricultural Sector by Stochastic Dynamic Programming

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### Abstract

In this study, regarding to special condition of Sistan region, Stochastic Helmand River flow in border of Iran and direct relation between farmer's income and cost with water flow of Chahnimeh reservoir, to allocate water stochastic dynamic programming and markov chain were used. For this reason first data series were gathered for 20 (1999-2009) years. Then a good model was made to show the region condition. Finally, regarding to different states of system in farming season and their probabilities, water allocate optimally between Sistan, Zahak and Miankangi and cropping area were determined. Results show that using stochastic dynamic programming reservoir 'water was optimally managed, water demand was determined in each area and cropping area was estimated. Therefore, this model is suggested to Chahnimeh Reservoir management.

*JEL Classification:* C1, Q25, C61

*Keywords:* Markov Chain, Optimum use, Helmand River, Sistan

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## **Application of Fuzzy Multi-objective Linear Programming Model for Determining Optimal Cultivation Pattern of Different Varieties of Rice in Paddies Babolsar**

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### **Abstract**

In this paper important quantitative and qualitative indices for determining cultivation pattern of different varieties of rice including Khazar , Binaam , Tarom as well as 10 basic indices of rice farming have been considered. To do this, the opinion and experience of both farmers and experts have been used. The indices are scaled (weighted) through Fuzzy analytic hierarchy process in-Extent Analysis Method (EA) of Chang- in which the numbers used are Fuzzy triangular. Ranking weights entered linear programming model in order to get the best cultivation pattern of city paddies Babolsar in 1390. The main constraints were land, labor, capital, water, chemical fertilizer, tractor and pesticide. The results of LP model suggest cultivation of both Binaam (10200 hectare) and Tarom varieties (4200 hectare) while the mixture of Fuzzy analytic hierarchy and linear programming model recommends the cultivation of Khazar -10200 hectare-instead of Binaam variety besides Tarom variety in cultivation pattern which has higher benefit.

**JEL classification:** C44, Q1

**Keywords:** optimal cultivation pattern, Fuzzy Analytic Hierarchy Process, linear programming, Extent Analysis Method (EA) of Chang, Babolsar city.

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**Estimating the Increase in the Cost Price of Agricultural Crops resulting from the Elimination of the Input Subsidies  
(A case study: Rice in Mazandaran Province)**

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**Abstract**

The Inputs subsidy is one of the common economic policies to support agriculture. Considering the government's decision on making the adjustments for subsidies, the effects of such decision on the increase of the cost production of rice in Mazandaran province has been investigated in this study. Because the amount of inputs consumption, and yield in deferent area is not same; the supported inputs (subsidized) among the farmers is different. In this study, measuring the effect of the subsidy modification on the cost production of rice has been considered using the field data. The data were derived from 150 questionnaires filled between producers of different varieties of rice in Mazandaran during 2009-2010. The used methode is included Translog cost estimation function as well as cost share of production inputs by using seemingly-unrelated regression models. The results show that one percent change in the inputs (seed and fertilizer) price causes to 0.06 percent increase in the cost of all rice varieties and 0.22 percent increase in the cost of high-quality varieties in Mazandaran. Moreover, obtaining the trend of changes in the input price after the "Objectively Subsidies Elimination Plan" and its effect on price elasticity, it was determined that eliminating input subsidies leads to 0.05 percent increase in the cost of all rice varieties and 0.17 percent increase in the cost of high- quality varieties in Mazandaran. Considering the differences in effects of eliminating subsidies on cost products, it is suggested that reducing the amount of support should be based on the type of the inputs.

**JEL Classification:** D24, H24, Q12, Q18

**Keywords:** Production Inputs, Cost Price, Subsidy Policies, Rice

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**Price Volatility Spillover in the Agricultural Products  
Markets: The Case Study of Meet Markets in East  
Azerbaijan Province**

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**Abstract**

The purpose of present study is to analysis price volatility spillover effects on vertical levels of mutton markets in East Azerbaijan province, among three levels of inputs and the mutton retail and farm levels. Thus, the Multivariate Threshold Generalized Autoregressive Conditional Heteroskedasticity (MV-TGARCH) model by BEKK technique was used whit weekly price data from 1377 to 1390. The results showed that the highest rate of price volatility spillovers bidirectional occurs from the production inputs market to mutton retail market and the lowest is from mutton market to the production inputs. As to be considered that the supply factors cause creation of price fluctuations in mutton market more than demand factors. Therefore controlling price fluctuations of production inputs can help to manage price risk in the mutton market. So focus on supply-side factors of the lamb to controlling price volatility in this market is recommended.

**JEL Classification:** C32, C5, Q14

**Keywords:** Mutton, MV-TGARCH Model, Price Volatility Spillover, BEKK Technique

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# ***ABSTRACTS***



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