Agricultural Economics
Journal of Iranian Agricultural Economics Society

Vol.5/No.3/2011

Publisher: Iranian Agricultural Economics Society
Managing Director: Saeed Yazdani, PhD, Tehran University
Editor- in- Chief: Mohammad Bakhshoodeh, PhD, Shiraz University
Editorial Manager: Shahrokh Shajari, PhD, Shiraz University

***Editorial Board*:**

M. Bakhshoodeh, PhD ---------- ***Shiraz University***
S. Hoseini, PhD ---------- ***Tehran University***
S. Dehghanian, PhD ---------- ***Ferdowsi University of Mashhad***
H. Salami, PhD ---------- ***Tehran University***
G.R. Soltani, PhD ---------- ***Shiraz University***
G. Sharzei, PhD ---------- ***Tehran University***
D. Salehi- Isfahani, PhD ---------- ***Virginia Polytechnic Institute and State University***
M. Koopahi, PhD ---------- ***Tehran University***
R. Mohammad Rezaei, PhD ---------- ***Tabriz University***
H. Mehrabi Boshrabadi, PhD ---------- ***Kerman University***
B. Najafi, PhD ---------- ***Shiraz University***
S. Yazdani, PhD ---------- ***Tehran University***

***Address*: Journal of Agricultural Economics, Collage of Agricultural Economics and Development, Agriculture & Natural Resource Paradise of Tehran University, Karaj, Iran.**
Tel: (+98) 26-32222767
Fax: (+98) 26-32247783
E-mail: iaejournal@gmail.com
www.iranianjae.ir

Contents:

Evaluating Support Policies of Milk Producers in Iran: 1989-2008
S.S. Hosseini
S. Iravani

The Effects of Social Capital on Rural Welfare and Poverty (Case study: villages under Doroudzan irrigation and drainage network)
A. Shirvanian
B. Najafi

Studying the effects of agricultural input subsidy elimination on selected agricultural production in Iran
F. Rahmani
M. Ahmadian
S. Yazdani

Determination of the optimal cropping pattern and market orientation under climate uncertainty: in Arjan district in Fars Province; application of two-stage stochastic programming
A. Mortazavi
A. Azhdari
S.H. Musavi

Comparing the Application of Logit, Probit and Tobit method in Economic Valuation of Environmental Resources: The Case Study of Behesht-e-Gomshode in Fars Province, Iran
A. Amirnezhad
S. Azhdari

Determination of optimum strategies of corn irrigation using stochastic dominance criteria (a case study of Zarghan region)
M. Sabuhi Sabuni
P. Jansouz

Analysis of increasing rice import tariff on welfare and poverty of the Iranian rural and urban regions
S.H. Musavi
A.K. Esmaeeli

Analyzing Impact of Global Economy Financial Crisis on Iranian Agriculture Exports
H. Mohamadian

An Investigation on the Effects of Advertising and Industrial Concentration on Profitability in Iranian Food Products and Beverages
A. Sadraei Javaheri
M.S. Zabihidan
A. Balaghi

Studying the effect of rainfall on cropping pattern and total gross margin in the right side irrigation network of Nekuabad diversion reservoir
M. Sabuhi
M. Mardani

ABSTRACTS

Evaluating Support Policies of Milk Producers in Iran: 1989-2008

S. S. Hosseini and S. Iravani*

Received: 9 Oct 2010 Accepted: 5 July 2011

In this study, support policies of milk producers were investigated during the fourth Economic, Social, and Cultural Development Program (1989 - 2008) in Iran. Support amounts were estimated by Producers Support Estimate (PSE) and Percentage PSE (%PSE) indicators. Data needed to calculate the indexes are taken from the statistical and library resources. Research findings show that support for milk producers in all the years studied were negative and the average support during the first and fourth programs was estimated to be -81, -71, -38 and -18 billion Rials, respectively. Although, PSE % indicator had increasing trend and increased from -90 percent in the first program to -35.6 percent in the fourth program. The results also revealed that market price support had increasing trend during development programs, whereas government's budgetary supports for milk producers had decreasing trend; and energy subsidy had the biggest share in government's budgetary supports.

JEL Classification: Q16, Q17, Q18

Keywords: Milk, PSE, PSE %, Support Policies, Iran

* Respectively Professor and MSc. of Agricultural Economics, Tehran University, Tehran, Iran

The Effects of Social Capital on Rural Welfare and Poverty (Case study: villages under Doroudzan irrigation and drainage network)

A. Shirvanian and B. Najafi*

Received: 16 Feb 2011 Accepted: 10 May 2010

Social capital in the form of local institutions is expected to reduce poverty and increase welfare. This study aims to investigate the role of social capital on poverty reduction and welfare in villages under Doroudzan irrigation and drainage network in Fars province. Poverty and social capital indices, function of probability of being poor in Tobit form, and function of welfare were used. The required data were collected through interviews and 107 questionnaires were filled up, using a two stage random sampling method. Results indicated that households are member in 2.355 local institutions. Social capital in local institutions form has not played an effective role on reducing poverty and increasing welfare. Therefore, in order to make rural participation as an instrument for a better socio-economic condition, revisions on social capital situation are necessary in rural societies.

JEL Classification: Z13, I3, 018

Keywords: Social capital, welfare, rural poverty, Doroudzan irrigation and drainage network

* Respectively Senior Researcher of Agricultural Economics in Agriculture and Natural Resources Research Center of Fars province and Professor of Agricultural Economics, Shiraz University, Shiraz, Iran.

Studying the effects of agricultural input subsidy elimination on selected agricultural production in Iran

F. Rahmani, M. Ahmadian and S. Yazdani*

Received: 11 Jan 2011 Accepted: 5 July 2011

The main objective of this study is to examine the effects of agricultural inputs subsidy on production using a Computable General Equilibrium and General Equilibrium Growth Accounting Approach for 1972-2008. The results indicate that the elimination of subsidy for wheat and barley seeds have no significant effects on changes of agricultural products. Also, elimination of nitrogen subsidy would increase the production of rice and cotton and decrease the productions of sugar beet, barely, corn, cotton, potato and other selected agricultural products. A reduction in phosphate fertilizer subsidy increases productions of sugar beet, barely, corn, cotton and potato, and a decrease in the production of other products. The elimination of potassium fertilizer subsidy will cause an increase in sugar beet, wheat, corn and potato productions, with no effect on barely production. According to the results, the elimination of herbicide subsidy will increase the productions of rice and sugar beet, and decrease the others. The elimination of fungicides subsidy will increase the quantities of rice, sugar beet, wheat, and corn and decrease the outputs of others. Finally, the elimination of insecticides subsidy will increase the production of rice, sugar beet, corn and potato and has no effect on barely production. The current general subsidy payment method for agricultural inputs is simple to execute, however is accompanied with irregular and non optimized consumption of inputs, and is biased toward the farmers who have larger land. As conclusion, we showed that the present subsidy payment system needs to be revised to achieve a more fair solution.

JEL Classification: C68, Q18, E23.
Keywords: Subsidy elimination, General Equilibrium Model, Agricultural Products

* Respectively, PhD of Agricultural Economics, Science and Research University; Professor of Economics; and Professor of Agricultural Economics, Tehran University, Tehran, Iran.

Determination of the optimal cropping pattern and market orientation under climate uncertainty: in Arjan district in Fars Province; application of two-stage stochastic programming

A. Mortazavi, S. Azhdari and S.H. Musavi*

Received: 7 Nov 2010 Accepted: 14 Sep 2011

Considering risk in multi-stage farmer's decision making from production to marketing process can provide a long-run framework for policy makers and researchers to manage farmer's income, especially in developing countries. This study investigates the cropping pattern, consumption and net sale of agricultural products in Arjan district, Fars province under climate uncertainty conditions. Hence, three deterministic models for normal, drought and wet conditions and a two-stage stochastic model were used. The results showed that in short term, which proper climate information exists during the decision-making process, deterministic models provide a range of profit which changes the situation of region from net buyer to net seller one. Compared with certain models, two-stage stochastic model offers long term conditions in which the cultivation pattern not only insures regional self-consumption, but also guaranties marketable surplus.

JEL Classification: C02, C61, D81

Keywords: Optimal cropping pattern, Uncertainty, Two-stage stochastic programming model, Arjan district, Fars Province

* Respectively, Assistant Professor of Agricultural Economics, Tarbiat Modares University, MSc student of Agricultural Economics, Tarbiat Modares University and PhD student of Agricultural Economics, Shiraz University.

Comparing the Application of Logit, Probit and Tobit method in Economic Valuation of Environmental Resources: The Case Study of Behesht-e-Gomshode in Fars Province, Iran

H. Amirnezhad and S. Azhdari*

Received: 30 Oct 2010 Accepted: 22 Nov 2011

Comparison of valuation methods of natural resources can result in optimal resource valuation. The present study assesses the recreational value of Behesht-e-Gomshodeh region of Fars province by contingent valuation methods to analyze and compare willingness of visitors to pay, using linear Logit, Probit and two-stage Heckman models. The sample sizes were calculated by simple stochastic sampling method and then all analyses were performed using information of 200 queries. The results showed that despite the two-step Heckman method can distinguish the affecting factors of accepting willingness to pay, and factors affecting its amount, total amount of willingness to pay estimated by this method seems to be lower in comparison with the other methods. Average value of willingness to pay for recreational use based on Logit, Probit functions and Hickman's two-step approach were 9987.47, 9773.83 and 2593 Rials per visitor respectively. Also, the results demonstrated that Logit and Probit methods have more simplicity of calculation and adoption power with region's reality. Therefore, in comparison with two-stage Heckman method and its limiting assumptions, they are better methods for valuation of natural resources.

JEL Classification: Q26, Q51, Q57

Keywords: Recreational Value, Contingent Valuation, Logit and Probit Method, Two-Stage Heckman Method, Fars province

* Respectively Assistant Professor of Economics of Natural Resources, Sari University and MSc in Tarbiat Modarres University.

Determination of optimum strategies of corn irrigation using stochastic dominance criteria (a case study of Zarghan region)

M. Sabuhi Sabuni and P. Jansouz*

Received: 19 April 2010 Accepted: 24 Oct 2011

In the current study, various deficit irrigation strategies of corn were considered using Stochastic Dominance Criteria in Zarghan region of Fars. Results showed that optimum deficit irrigation strategy, based on the corn yield and gross margin is on the second and fourth corn growth stages. In the conditions of limited water and land, risk taker and averse farmers showed different behavior in choosing cultivated area in each deficit irrigation plans. In 10 percent deficit irrigation in second and fourth corn growth stages, risk averse farmer devoted the highest cultivated area and the risk taker farmer in 5 percent deficit irrigation in fourth corn growth stages.

JEL Classification: Q25, C61

Keywords: Deficit Irrigation, Stochastic Dominance, Corn, Zarghan

* Respectively Assistant Professor of Agricultural Economics, Zabol University and MSc in Agricultural Economics, Zabol University.

Analysis of increasing rice import tariff on welfare and poverty of the Iranian rural and urban regions

S.H. Musavi and A.K. Esmaeeli*

Received: 12 Dec 2010 Accepted: 8 Sep 2011

A brief review of Iranian socio-economic literature clearly implicates prolonged poverty. In this regard, a number of measures performed in the framework of five-year development plans by focusing on agricultural and food markets reform for dampening rural and urban poverty, especially in the post-revolution years. Rice has played an important role in production pattern and in consumption basket of Iranian people; hence, this study tries to quantitatively analyze increasing rice import tariffs on rural and urban welfare and poverty by developing a multi market spatial price equilibrium model. Results showed that the effects of such a policy among regions are subject to rural and urban circumstances and their net seller and net buyer position. However, Iran as a whole is a net buyer country. Therefore, any tariff increase deteriorates consumers' welfare and poverty rather than improving domestic production and producer surplus.

JEL Classification: C02, C61, D18, D60, F10, I31, I38

Keywords: Rice market, Import tariff, Multi-market spatial price equilibrium model, Welfare, Poverty, Iran

* Respectively, Ph.D student and Associate Professor of Agricultural Economics, Shiraz University.

Analyzing Impact of Global Economy Financial Crisis on Iranian Agriculture Exports

H. Mohammadi*

Received: 19 April 2010 Accepted: 24 August 2011

The objective of this study is to investigate the impact of financial crisis on global economy of agriculture sector as well as raisin and date exports. Export demand of the selected crops was estimated using time series and panel data. GNP of the importing countries and exchange rate volatility were applied as indices indicating the global financial crisis. Time series data showed a long-run relationship between export demand and its affecting factors. Findings also showed the significant impact of the decrease in GNP of the importing countries in long run. Impact of this variable was also recognized important on demand estimated by panel data. Generally speaking, exchange rate volatility may affect agriculture sector and raisin export positively while in the case of date a negative impact was more evident.

JEL Classification: F14, G01, Q17
Keywords: Financial Crisis, Global Economy, Agricultural Export, Iran

* Assistant Professor of Agricultural Economics, Zabol University

An Investigation on the Effects of Advertising and Industrial Concentration on Profitability in Iranian Food Products and Beverages

A. Sadraei Javaheri, M. S. Zabihidan and A. Balaghi *

Received: 19 July 2011 Accepted: 28 Nov 2011

This study examines the effect of market structure and conduct on profitability in Iranian food products and beverages industries at 4 digit ISIC Codes in 2007. Simultaneous equations method is used for estimation. The trend of indices for market structural, conduct and performance indicate the fact that competitive environment has improved and the average rate of profitability has decreased. The study confirms the validity of Structure Conduct Performance (SCP) approach in the selected industries. The results showed that industrial concentration and advertising have a significant effect on profitability. The results also indicate a significant and positive effect of export on the average of profitability in the industry. The study demonstrated the fact that any policy for improvement of market structure including policies for decreasing entry barriers and concentration can affect conduct and performance in the industry. These policies can improve competitive environment and lead the market to allocative efficiency. It eventually enhances consumer surplus in the industry.

JEL Classification: D40, M37, L66, C30

Keywords: Market structure, Advertising, Food products and beverage industry, Simultaneous equations system

* Respectively, Assistant Professor of Economics, Shiraz University; MSc. student, Department of Economics, Shiraz University and MSc. student, Allame University, Tehran.

Studying the effect of rainfall on cropping pattern and total gross margin in the right side irrigation network of Nekuabad diversion reservoir

M. Sabuhi and M. Mardani*

Received: 18 Nov 2010 Accepted: 30 Sep 2011

Available water is one of the limited factors of agricultural development and has a strong correlation with rainfall. Rainfall is one of the most important factors of uncertainty in determining optimal cropping pattern, which have been neglected. In the current study, the influence of rainfall on optimal cropping pattern and total gross margin was investigated in the right side irrigation network of Nekuabad diversion reservoir, Isfahan Province. Optimization Model with degree of conservative controller parameters was used as model. Data were obtained from the agriculture department and Mirab-e-Zayandehrood Corporation in 2009. Results showed that rainfall has positive effects on cropping pattern and total gross margin. The total gross margin was increased from 197 to 233 billion Rails and agriculture areas from 7241 to 10726 in the constraint violation probability level of one (p=0.1). Therefore, it is recommended to pay more attention to rainfall at the policy making level by considering the influence of this factor on farmers' decision making in determining of mixed crops.

JEL Classification: Q1, C61, N5

Keywords: Rainfall, Uncertainty, Optimal cropping pattern, irrigation network

* Respectively, Associate Professor of Agricultural Economics and MSc. of Agricultural Economics, Zabol University, Zabol, Iran.