Impacts of Drought on Rural District's Economy in Sirvan and Chardavol Counties

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Introduction

Drought is a natural disaster resulting in many damages to human life and natural ecosystems which is different from other kinds of disasters such as flood, hurricanes and earthquakes. As a result of this phenomenon, the level of surface water and ground water decrease dramatically and it is followed by various negative impacts on all aspects of villagers' life especially on economic aspect and agriculture structure. Frequent droughts result in more and more vulnerability of rural societies for facing present droughts, in a way that in some societies the basic challenge for many vulnerable households regarding the drought is survival. The economy of studied villages in Sirvan and Chardavol counties is dependent on agriculture activity. In the past years and before the occurrence of drought, these two counties were considered as a focal point for rice cultivation in Ilam province. In recent years, agriculture section is affected severely and water lands turned to be arid during the year because of climate changes and following that the occurrence of drought and its impacts on water resources, such as drying of seasonal and permanent rivers (Chardavol River) or decrease in agriculture water in the studied counties. According to the agricultural statistics released by Agriculture Organization of Ilam province, proportion of area under irrigated cereals as the dominant cultivation in two counties, Sirvan and Chardavol, in 74-75 crop year was 1530 and 6124 hectare respectively which has been decreased to 35 and 830 hectare in 90-91 crop year. These changes result in many problems in social and economic structure of rural districts in these counties. These problems in the studied rural societies are increase in unemployment, decrease in agricultural productions, decrease in income level and saving of households, increase of fake jobs. So, according to the necessity and importance of the issue, this survey aims to study economic impacts of drought on rural districts which are dependent on agriculture activities in Sirvan and Chardavol in order to answer the question that *"What are the impacts of drought on economy of rural districts which are dependent on agriculture activities in Sirvan and Chardavol?"*

Methodology

This survey is a descriptive- analytic one. The population includes all the farmers of Sirvan and Chardavol counties (N= 8099) and regarding the condition of the studied society, we used multi-stage hierarchical sampling method. Therefore, after determining the samples by using Cochran's Formula which was calculated 367 people, we determined the portion of each rural district and

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available village out of samples using multi-stage hierarchical sampling method and according to portion principle for each county's portion (103 people from Sirvan county and 264 people from Chardavol). Therefore, after determining the samples by using Cochran's Formula which was calculated 367 people, we determined the portion of each rural district and available villages out of samples using multi-stage hierarchical sampling method and according to portion principle for each county's portion (103 people from Sirvan county and 264 people from Chardavol).

Questionnaires were the data collection tools in this survey. The questionnaires are divided to two parts: the first part includes questions about personal and social characteristics of the farmers such as age, sex, education, and their agriculture activities' experiences, water resources before and after drought, the amount and the type of owned land. Second part includes items in the case of drought impacts on economy of rural districts. Since the target villages are dependent on agriculture activities and farming, therefore, the resulted structural and functional impacts of drought on agriculture section such as areas under agriculture production, production, the process of planting and harvesting the crops, income and farming costs, investment and savings by farmers, employment in agriculture section and the number of employees are considered as indicators of drought impacts on economy of rural districts and these items have been questioned. The validity of data collection tool was confirmed by experts. Its stability has been achieved by performing pretest and calculation of Alfa Cronbach (0.797). To analysis the data, descriptive statistics and inferential statistics have been used including factor analysis. To assess suitability of the data by factor analysis, KMO and Bartlett test have been used. All the statistical calculations in this study have been done by SPSS version 20 for windows. Sirvan and Chardavol counties are located in Ilam province in the west of Iran. Chardavol County is divided to two districts; 5 rural districts and two cities; Sirvan County has one district, three rural districts and a city; according to 1390 census, Chardavol County's population is 55225 and the rural population is 37981. Sirvan population is 16948 and its rural population is 13047. Economic structure of these counties is dependent on agriculture and their major water resources are Chardavol River and Simereh River which are almost dry because of recent drought and also the amount of water in Simireh River in two stations, Halilan and Sazbon, decreased up to 90 and 82 percent respectively in 2007-2008 water year.

Discussion and Conclusion

Drought is one of the most persistent and most harmful natural disaster regarding the economy of the region which not only affect the agriculture quickly and directly but also it is followed by indirect and harmful impacts as a result of disorder in natural growth of agricultural productions. The results of factor analysis showed that the recent drought resulted in negative impacts on the economy of the rural districts in two counties, Sirvan and Chardavol. Drought impacts on rural districts in Sirvan County are four impacts including: decrease in production, increase in farmers' debts, poverty and change in approaches to agriculture. The results of factor analysis in Chardavol county shows that many changes happened in the economy of rural districts of this region too because of the occurrence of drought including economic crisis, poverty, change in approaches to agriculture and the debt crisis. According to the obtained results, in Sirvan County, the first and the most important impact of drought on economy of villages which are dependent on agriculture activity is decrease in production.

Keywords: Drought, SPI Index, Factor Analysis, Sirvan and Chardavol Counties.

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Analysis of Limitation in Rural Economy Diversification Case: Upper Ashkevar in Rudsar County

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Introduction

In economy structure of rural districts in different countries, agriculture is considered as the main source of livelihood. The most important characteristic of this structure is lack of diversification for economic contexts and job opportunities, especially for the increasing number of people in the villages which is almost the result of attitude toward the village and government policies and internal factors in the village. The consequences that are the results of dependency of the users to the environment out of the village and external markets, obvious and unobvious unemployment, decrease in return of investment, destruction of basic natural resources, rural economy vulnerability, and instability of income sources include weakening economy and culture of the village, rural migration and marginalization. The country's villages have a weak economy and they are vulnerable because of their severe dependency on agriculture and its income and lack of employment sources and non-farm income sources. Agriculture section is not capable of increasing the level of income because of limitation of land areas which cannot be increased. Therefore, it seems necessary to search for another income source regarding the capabilities and limitation of each region of the country for rural economy diversification in order to increase the population stability in the villages. Upper Ashkevar rural district is located in a mountain region and therefore it has limitation in land area, it has agriculture -based livelihood, a limited capacity for employing workforce and no diversification. Because of population growth and increase of the number of young workforce, unemployment rate is growing every day and it seems to be extremely important to find alternative strategies for villagers' employment and income earning in this region focusing on population stability and saving the remained population. Therefore, diversification approach for rural economic activities as a useful strategy is one of the most important strategies which is presented for reducing the negative impacts of unsustainability in different environmental, economic and social aspects on rural contexts and in accordance with sustainable development pattern which is confirmed by most of international organizations including Global Bank and by most of theorists. High vulnerability of agriculture activities in the region has increased the necessity of diversification in agriculture activities. This study aims to answer the following question: *"What are the most important limitations in diversification of rural economic activities in Upper Ashkevar"?*

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Methodology

This survey is a practical one, regarding its aim and it is done by descriptive-analytic method. The population includes villages of Ashkurat district in Rudsar which is determined according to field studies in the region and exploratory studies. For assessment of studied variables, we used survey methods and documentary research methods to obtain the information needed. In documentary part, we collected data by reviewing the literature and theories and in quantitative part we analyzed data which were collected through field study and also by the information provided from some organizations. The study population includes villages of Upper Ashkevar rural district (53 villages) in Rudsar County. To determine the number of households, we used Cochran Formula and according to that, samples are 285 households. Alfa Cronbach coefficient is calculated 0.786. To analysis the impacts of infrastructural and basic variables, natural factors and social factors which are effective on the lack of diversification in rural economy activities, we used step by step multi regression analysis method. The studied region is located in Rahimabad district in Rudsar County, north of Iran. Its elevation is 1500 to 2000 meter above sea level. Its population has decreased from 2478 people in 2006 to 1619 people in 2011. Agriculture is the basic occupation for the villagers in this region. Environmental limitation especially droughts in recent decades and climate changes in most years have threatened the agriculture production in this area.

Discussion and Conclusion

One of the most effective factors to describe the presence of increasing unemployment, low income, migration from rural districts to cities, low level of production, and inefficient use of resources is lack of diversification in economic activities in rural settlements. This issue has a fundamental role in economic instability. Rural settlements in this region are affected by many factors including unevenness of the soil surface, weather, water resources, soil and vegetation, limitation of slope, cold weather, geographical isolation and lack of infrastructures. As a result, there is a sever instability in economy and population of this region; in a way that during two censuses in 85 and 90, population of this region decreased by 30%. Increase of unemployment, poverty, income inequality and as a consequence pressure on basic resources have resulted in environmental problems including soil erosion. The obtained results show that among all the different factors which were studied, the impact of infrastructural and basic factors is more than other variables. Then, environmental factors, economic factors and social factors are effective in lack of rural economy diversification respectively. Regarding this, providing and implementing development plans for expansion and improvement of infrastructure levels such as suitable road, supporting services for production and alternant industries can be effective in rural economy diversification of the region.

Keywords: Diversification, Rural Sustainable Development, Rural Economy, Upper Eshkevar.

Evaluation and Analysis of the Level of Infrastructure Development in Rural Areas of Ardabil Province

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Introduction

Regional development is one of those issues that have attracted lots of attentions by program-makers, especially the regional ones. A study on various levels of the major criterions including those of economic, social, cultural and health, particularly at regional level, is useful to determine the position of different regions, as it requires special considerations in regional level as well as determining conditions of national adaptation and conformity. So, as a country with various levels of development in different provinces, the rate of development of the cities and areas within a province cannot be the same. It may sometimes happen that due to the heterogeneous spatial distribution of development resources and different factors of economic, social and natural areas in rural districts of a province we cannot find any proper process of development. It seems that in the province of Ardabil, inequality and imbalances in optimal distribution of resources has caused the problem of concentration of facilities and services in the city dominated area that will consequently lead to the divergence and development gap among different regions. This is despite the fact that a little number of researches has done to determine the level of development of rural districts using different models and their integration as well as using the latest census results.

Methodology

This paper presents a practical article using descriptive analytical method. In order to collect basic information on the topic of different documentary methods based on library have been used. By documentaries methods collected theoretical principles related to the subject of the research and indexes. In this regard, due to the confronting limitations, we relied on to the determination of 13 indicators and variables in the field of infrastructure development. After collecting and processing information and required data in Excel, development levels of villages was calculated by means of multi-criteria decision making methods of TOPSIS, VIKOR, SAW and composite index of human development (HDI). In the following investigations done, Kapland method was used to achieve a consensus for the classification of rural districts. Finally, the results were illustrated in the form of maps using GIS to enable better analysis of spatial development in the province.

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Discussion and conclusion

The study and comparison of rural districts in various aspects of economic, cultural, physical and spatial can significantly help Planners and policy makers in villages to take the right steps in the process of decision making and implementation of appropriate programs to provide them as many chances as possible to reduce regional inequalities. It is noteworthy that, currently, there are several statistical and cartographic methods of micro and macro ranking of rural districts providing different results as outputs. Thus, using new methods, comparing them with each other and choosing the best one is a matter of particular importance. In this study, after examining rural districts of Ardabil Province in terms of its underlying indicators, the following results were obtained. Results from ranking of rural districts in terms of different levels indicate that we should make a cautious use of multi-criteria decision-making methods (MCDM). The mere use of one or more quantitative model cannot reveal the reality of a society. Because, as we have already seen, TOPSIS, VIKOR, SAW, and HDI model have presented different results. For example, the highest level of development in TOPSIS model is dedicated to the rural districts of Mahmudabad, South Vilkij and Palnga. While in other models the highest level of development belongs to (rural districts of Kalkhoran, Eastern Angot and down Brznd in VIKOR), (rural districts of Eastern, southern and western Kishlak in HDI), (rural districts of Eastern Kalkhoran, and Eastern Khandbyl in SAW). Furthermore, using these four models showed different results in final ratings. As, the lowest level of development belongs to (the rural districts of Sabalan, Western Angot and down Brznd in TOPSIS), (the rural districts of Plnga, Kishlak Reza Qoli and low Brznd in VILOR), (the rural eastern districts of Minabad and Kalkhoran in HDI) and (the rural districts of western, eastern and southern Kishlak in SAW). It should be mentioned that the rural district of down Brznd has occupied the final ranking place just in the two models of TOPSIS and VIKOR. Eventually, by the use of the composite model of kapland we have resolved the problem and achieve a final ranking. Results from this model indicate that rural districts of Southern Senjed, Central Arshagh, and Eastern Angot have the highest and Arjestan, Alvarus, and Sabalan have the lowest level of development.

Keywords: level of development; infrastructure development; enjoyment; rural areas; Ardebil Province.

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Socio- Economic Impacts of Micro- Credit Agriculture on Rural Areas Case: Rural district of Karasf

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Introduction

Considering the important role of agriculture sector in the rural economy, it has caused the development of rural economy in various environmental, social and economic aspects. Thus it can play a significant role in achieving sustainable rural development. To achieve such goals, a particular value must be given to natural, social, human and financial capital resources. Among these, financial capitals receive the highest level of importance. According to the relatively small amount of local benefits of villages along with limited financial resources, less capital flows can be seen to the agriculture sector. Due to the individual exploitation system in the form of micro-credit granting, this condition has caused government give an important value to the supporting procedures of agricultural sector. Karasf in Khodabande county of Zanjan province is one of those rural districts whose share of agriculture sector in its economy is highly remarkable. The relatively low income of farmers in this region together with bureaucratic mechanism of banking system to finance resources of agricultural sector provoked farmers to utilize micro-credits. As in the years of 1385-1392 about 30 thousands of credits was granted to the farmers of this region. Approximately about 66 billion Tomeans of microcredits allocated to this region. It has been concluded to some effective results for villagers in agricultural sector and consequently for the rural development of the study area of the project. In the present research we are trying to evaluate the effectiveness of such credits which have been mainly used in agricultural sector. In this regard the following fundamental question raised:

- In which ways the allocated agricultural micro credits are being used?
- What are some socioeconomic effects of microcredits on the rural district and its nearby villages?
- What factors influence the effectiveness of agricultural microcredit in the intended rural area?

Methodology

This study done by the used of descriptive analytical approach. The statistical population includes exploiting farmers of different villages from rural district of Karasf in Zanjan province (20 villages), Agriculture Jihad experts (10 experts), and experts of agriculture bank (5 experts) in Khodabande county. The following steps were spent in order to sample and determine the sample size: Selecting sample villages, we initially determined the number of villages which were taking advantages of microcredits and then classified them through the frequency of

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targeted utilizing. Out of 20 villages which had received credits, the sample size of 4 was determined by means of an estimation method based on similar research experience. Then 4 villages of Karsaf, Paskuhan, Korechal, and Dalaye sofla were selected based on results from qualitative sampling. By the use of Cochrane method, 157 out of 2200 units which were taking advantage of microcredits (and had received the credits at least one time in 1385- 1392) selected as agriculture utilizing units. Then using random and stratified sampling methods a case group has been selected from four villages. The intended experts were investigated by census method. To measure the amount of effectiveness, criterions like bank credits for the installment sales of machinery, creating livestock facilities, credits granted for digging wells, providing engine, saving the cost of planting, sowing and harvesting, creating jobs, increasing the amount of production, increasing of revenue and preventing migration of villagers have been selected. Data collection has done through library and field methods. Questionnaires and questioning techniques have been used in parts related to field studies. Due to the subjective nature of the criterions, an ordinal scale used for evaluating data. To assess validity and reliability of the questionnaire, expert opinion and Cronbach's alpha have been respectively used with emphasis on internal consistency of data. Total alpha coefficient was about 82% which indicates high reliability of the questionnaire. One sample t test and rational arguments were used for analyzing data.

Discussion and conclusion

Measuring the effectiveness of agricultural microcredits in rural development indicates that some indicators are more effective than others. The increase of agricultural products (particularly crop products) is the most effective factor on the effectiveness of microcredits. Of course, some other significant factors like the increase of income and savings and decrease of the migration rate can be attributed to it. Results show that agricultural microcredits do not affect equally on different indicators of development- especially on socio-economic ones. Moreover, executive mechanisms of granted microcredits influenced by traditional approach (economic growth) are not necessary efficient enough. In this framework, effective factors like centralized management (up to down) and official and legal relationships have caused financial resources of local nature not to rely on micro-savings by people which has caused by itself the instability of such resources. This situation can be a consequence of different factors. Among these factors, the dominant approach of implementing the policy of agricultural micro-credit is one of the most important ones. A comparative study of the principles governing the granting of credits shows that in the study area, traditional thinking (affected by the perspective of economic growth) was dominant. In the other words, one-dimensional development of the study area influenced by microcredit is influenced by traditional thinking which is governing its role of credits in positive developments of rural areas.

Keywords: Agricultural microcredits; rural development; development dimensions; rural district of Karsaf.

Role of Local Economy in Excess Flow and Reconstruction of Regional Network System
Case: Kerman Province

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Introduction
Changes in spatial patterns and its structural and functional dynamics which is apparently obvious within physical links and relationships of cities and rural and urban network is fundamentally one of the outcomes of forces that contribute to the controlling process of actual mechanism of capital absorption, its flow, work forces, and population. Such forces play a significant role in excess flow and changes made in the structure of spatial system of regional network and its reconstruction, especially in urban networks. Results coming from changes in urban structures usually appear in form of physical development of structures and physical and functional changes which can cause alternative changes in the spatial structure of regional network system and urban network in terms of regional space and its peripheral relations. So, studying urban mechanisms can effectively help us in developing an efficient analytical framework or strategy of space reconstruction just in case that we try to study changes and understand forces and effective process on the construction and reconstruction of urban systems. This point of view can enable us to justify organization and reorganization of urban networks in regional space.

Methodology
Considering thinking direction of political economic (as the fundamental theory), this research is investigating the rate of socioeconomic changes and basic mechanisms which lead to the creation and transferring of patterns of spatial organization in regional space of Kerman. Regarding the nature of the subject and its components, making use of analytical-descriptive method as an excellent approach was something inevitable. The official definition of statistical population of this research includes of urban centers of Kerman Province. Theoretical and quantitative information have been collected from scientific and statistical resources through documentary method. To explain and interpret regularities and rules of distribution of the size of cities and changes related to regional and urban network

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system, quantitative method of rank - size and prime city have been used to explain spatial hierarchy and intra city relations and links.

Discussion and conclusion

Local economic relations, excess flow and reconstruction of urban mechanism in regional space of Kerman County have all occurred within a process of three different periods:

First period: Rural economic, excess occasions and urban dominant: In the initial years of land reforms and within this time, excess possession of landlords was forming the foundations of different methods of social management in spatial organization of the area. Of course, the domination of the biggest city of the area (Kerman), has been the most prominent form of spatial reflection of urban network. Within this period of time, urbanization has been gradually progressing in Kerman Province. It should be noted that the imbalanced growth of urban mechanism is one of the consequences of inequalities in agricultural sectors and among rural areas that has resulted into imbalanced distribution of regional space. In addition, it has caused all the privileges connected to the concentration of capital, facilities, activities and population to be allocated to the metropolis of the area. The functional feature which is particularly dominant is known as the basic feature of exploitation capitalism which is applied in villages and small cities of the area by Kerman.

Second period: Changes in local economic network, the rise of oil rents, and related urbanization: After land reforms and formation of rentier state, national oil surplus has had a great impact upon the construction of the environment of the area. From the time of the complete destruction of local and regional networks used in order to exploit excess rural resources, a series of aggressive actions was begun in the city of Kerman via the absorption of extra mines and industries which was not merely resulted from production. Actually, it was kind of ownership royalty appointed by urban governance to make higher amount of production, activities and concentration. Excess industrial-mining flow is mainly departed into the central area. A great amount of it has been grasped by the regional metropolis of Kerman. Financial mechanisms of budgeting, credit distribution, development programs and distribution of bank deposits by the government are examples of other forms of investment in this period. These forms have made unequal spatial concentration and heterogeneous current of national surplus in urban networks to be possible. A great amount of excess flow is dominantly and unequally devoted to Kerman through development budget and bank deposits. Patterns related to the velocity of money and surplus unequal concentration not only reflected over the spatial organization of settlement system (space of area) in forms of imbalanced development, but has also constructed and reconstructed a new but unequal networks of cities and rural- urban areas within the same space. Third period: Urban changes and excess absorption: Since 1370s, urban transformations caused inequalities in excess absorption, excess flow, and excess accumulation in urban networks through the creation of new frameworks. In this way, new imbalanced forms have gotten expanded in regional space of the area. In this period, the process of urbanization was the

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main reason of using rents (excess). Excess absorption was also done through these urban changes and transformations. The mostly used rent-seeking structures are made through space creation, high profit-making plans of urban development, designing and performing noncommercial projects by private section and state actors which can lead into the production of value and surplus value. The implementation of these kinds of project which are considered as success tools for urban management in competitions for a closer and longer approaching to rents are the most significant factors affecting urban transformations to absorb and make an unequal excess flow within the cities. Considering this, the real strategy of regional integration and reconstruction of regional and urban networks based on declining hegemonic relations in the metropolis and availability of equal chances of development for networks staff must be relied on a special pattern via which we can provide situations of employment generation based on internal capacities of local economic growth in the bottom of the whole network together with eccentric growth of large urban nodes (Kerman) mixed with several developing old nods (Rafsanjan, Sirjan, Jiroft, Bam and Zarand). It seems obvious that a model like this cannot be effective without reviewing and rethinking of its structural relations and concepts and regulations of the hegemonic process of national surplus.

Keywords: local economy; urban network; social surplus; reconstruction of urban network; Kerman.

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Explanation of Agent's Professional Capabilities in Agriculture Jihad for Rural Development of Kermanshah Province

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Introduction

Rural planning is one of the most important activities for agents and planners of development. Agriculture Jihad aims to accomplish rural development purposes through codification of plans and activities to increase the level of awareness and professional skills of villagers. In developing countries, it is a problem that rural planners do not have enough technical and professional information. Change agents in Agriculture Jihad as the engine of rural development have the responsibility to educate villagers and increase their level of awareness, insights and professional skills. Agents' professional development in Agriculture Jihad means using potential capacities of staffs which are not used completely at the moment. Today, economic development experts believe that using human resources which have been developed is the most important factor that effect on the process of socioeconomic development in countries. So, they have emphasis on investment in human resource development more than ever. On the other hand, changes because of globalization resulted in changes in human resource development and also characteristics of developed human resource and human resource requirements of labor market have increased in more dimensions. Creating communication is change agents' skill which means capability of planning, preparing and presenting profitable innovations to the villagers. On the whole, it can be said that professional empowerment is the process of continuous improvement in management of Agriculture Jihad which is done by creating and expansion of dominance based on people and groups' competency on all the areas and duties and influence on staffs' performance and the overall performance of the organization in rural planning. Therefore, empowerment should be focused in order to develop human resource in Agriculture Jihad which results in empowerment and job satisfaction of the staffs and approaching to one of the rural development's purposes. So, regarding to the importance of the subject and since the operational systems of the organization are executed by humans and this is the most important investment of the organization, this study is implemented aiming to explain professional capabilities of the agents in Agriculture Jihad for rural planning. The study aims to answer this key question that "Whether agents of Agriculture Jihad in Kermanshah province have the professional capabilities of rural planning or not".

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Methodology

The study population includes all agents and rural development planners in Kermanshah province which is 456 people. In this study, all the staffs of Agriculture Jihad including manager, experts, technicians and constructive corps are called agents of Agriculture Jihad. The sample size is determined 210 people according to Morgan table. Sampling method was chosen randomly out of the respondents. Data collection tool was questionnaires and its validity was confirmed by some of the university professors and experts; its stability was determined using pre-test. Cronbach's Alfa was calculated 93% and 90% for professional capability in rural planning and entrepreneurial spirit respectively that shows the suitability of the data collection tool. For data analysis, descriptive statistical methods and referential statistics have been used. In descriptive statistics part, distribution of items' frequency and characteristics of respondents such as frequency and percent are measured and also the professional capability in rural planning and entrepreneurial spirit in management of Agriculture Jihad in Kermanshah province are studied too; in referential statistics part, correlation analysis and regression analysis are used. Data analysis is done with SPSS 20 software.

Discussion and Conclusion

According to these study findings, the condition of entrepreneurial spirit between agents of Agriculture Jihad in this province is more than the measured average level. The result showed that in organization staffs' point of view these parameters are considered as the most important ones in performing a job: having responsibility, job satisfaction and self confidence in performing the job and having the experience in the field of training courses for having job satisfaction and professional capability, job requirements' assessment for starting a job, motivation for improvement and using new and innovative methods for performing the job, having the spirit of forgiveness and sacrifice in group activities and having the ability to adapt to new environment. And there is also a great correlation between variables such as entrepreneurial spirit, age, effects of in-service training course and professional capability for rural planning which shows the importance and outstanding role of these variables in professional capability. The results of step by step regression showed that variables such as entrepreneurial spirit, up to date specialized information and contribution in in-service training courses had many impacts on agents' professional capability and these variables are able to explain 64 percent of changes in the case of professional capability for rural planning. So it can be said that, using information systems in developmental activities, training the skills and creativity techniques to the staffs are some of the actions which can be suitable areas for development of entrepreneurial spirit and these actions also provide agents' professional capabilities in Agriculture Jihad.

Keywords: Professional Capability, Rural Development, Entrepreneurial Spirit, Agents of Agriculture Jihad.

Evaluation and Comparison of Sustainability levels of Rice Production in Sari County

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Introduction

It is difficult to measure sustainable agriculture as a multidimensional concept. While it is relatively easy to express philosophical definitions of agriculture sustainability, providing an operational and methodology definition for evaluating the level of sustainability is difficult. Different methodological approaches have been formulated and developed to assess the sustainability levels of sustainable agriculture. However, there is no consensus on a comprehensive framework for identifying and selecting indicators, different scales of indicators, weighting and especially for aggregating individual indicators into a final composite indicator and rating of sustainability level. So, Evaluation of sustainable agriculture is an important challenge for agriculture researchers, agents, and policymakers. A comprehensive approach for stability analysis is the complexity of each other-need activities. That's why we need a comprehensive analytical framework for evaluating sustainable agriculture development and use. This study presents a certain methodological approach to evaluate and determine the sustainability of agricultural production at farm-scale which integrates all the individual indicators of ecological, economic and social stability into a comprehensive final index. In a case study, in order to test the proposed methodology, 22 individual indicators were selected. Then, a local condition of rice cultivation in Sari County was studied through an open review of 287 rice farmers.

Methodology

Agricultural sustainability can be evaluated at different spatial scales including field, regional, national and even international measures. However, due to the specific conditions of each region, its natural environment, socio-economic conditions and agricultural techniques, necessity of a transparent scale is unavoidable. Most national indicators are not applicable at the scale of individual farms which are the purpose of the intended operations. In this study, 22 single index fields were selected to demonstrate and test the proposed methodology in a specific case study. Then, its relevance to the local conditions of rice cultivation in Sari County was studied by examining 287 rice farmers. Considering relative importance and impact of social, economic and ecological factors on the total sustainability, a methodology of Analytical Hierarchy Process (AHP) was applied by exploring the views of experts to determine the weight. Finally, the final composite indicator of sustainability was created through the integration of the three components of sustainability. A questionnaire was designed to collect data for the current farming operations. It

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consisted of three parts, namely: a) agricultural land management practices; b) economic performance and c) social characteristics of each farm. The questionnaire was designed in such a way to be completed in the shortest possible time. Thus, it was consisted of useful sections for measuring and providing information related to the entire system of agricultural production.

Discussion and conclusion

The results of this study indicate that 17.77% and 53.66% of rice production system is unstable and potentially unstable. While the sustainability level of social component was standing in a satisfactory situation, the sustainability level of economic and ecological components was still changing. In addition, farm sustainability was higher for those farmers using the method of biological control, low-product seed, agro-ecological management practices, owners of integrated land and participants in training and extension courses. The level of education, family labor, and the amount of self-consumption of rice are factors of positive and direct relations with ecological sustainability. On the other hand, the amount of rice production causes significant negative effects on it. Age, farming experience, level of education and the amount of self-consumption show a positive significant relation with social sustainability. In addition, education, land size, self-consumption, the amount of produced rice and productivity index are in a significant positive relation with economic sustainability. In general, factors including education, extension communication, attending training courses and the information source of consumption play a key role in the increasing of farmers' awareness. In this study, to evaluate and compare the sustainability of agricultural production system in farm scale, a methodology framework has been provided by the combination of three components of sustainability, i.e. economic, social and environmental sustainability. However, it cannot be claimed that the proposed methodology is quite authentic to evaluate the complicated phenomenon of sustainability. Different facilitating assumptions are required for the use of this methodology. Of course, it has several advantages and also can be used for different purposes. Thus, the following hints are noteworthy in the methodology section:

- Variables and indicators of sustainability should be selected according to the specific circumstances and context of each area and the topic at hand, as well.
- Validation and preliminary test of indicators is ensuring their appropriateness and being measurable in the current conditions of any region.
- Weight allocation model based on the views of experts and AHP, can obviously show the importance of individual indicators in the final integrated one.
- The integration of the three components of sustainability into the final one should be due to the relative weight of the components.
- In the process of making indicators, positive and negative effects of indicators on the overall sustainability must be considered.

Keywords: agricultural sustainability, sustainability assessment, sustainability indicators, rice producing system.

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Analysis of Effects of Tourism on Development Process of the Urban Villages Case: Serein County

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Introduction

In the last half-century, tourism has been considered as one of the most efficient factors in socioeconomic reconstruction and development of rural districts and non-urban areas. Tourism can be nominated as driver of peace, because it underlies friendship and mutual understanding between nations and brings peace without polluting the human environmental interactions unlike other productive industries. Today, tourism is a promising activity which is reminded as development pathway. In recent years, tourism as a new form of industry has had many effects on economic, social and cultural status of the world. Job creation, regional balance, helping to global peace, helping to investment on cultural heritages, improvement in the environment conditions, helping to improve wild life, development of rural districts which are endowed with tourism attractions and preventing migrations and etc. are some advantages of this industry. Iran is a country which has many different tourism attractions. Our country is among top ten countries in terms of tourism attractions; it is among top five countries in terms of tourism variations and among top three countries in terms of variations in handicrafts. According to tourism ranking in South Asia, tourism is dominated by Iran after India. It can be said that Serein County is the most attractive county in some seasons in Ardebil province. It can be said that Serein County is the most attractive county in some seasons in Ardebil province.

Methodology

Regarding its aim, this study is a practical one and regarding its methodology, it is a descriptive-analytic one. Data collection has been done by literature review, field study and using questionnaires. To analysis data, we have used a statistical test, T-Test which is considered as a parametric test. This test uses data with interval scale and ratio scale regarding the parametric test. The design of the questions can be changed to numerical indicators, so numerical equivalence is used in the form of Likert scale, describing the situations as very low to very high. The populations (or elements) are considered as the people with mutual characteristics including Hostess population of Serein and experts in the region. For sampling, Cochran Formula is used. For residential households which are 600 people, considering reliability level of 95%, and 6% possibility of acceptable error of estimation in sample size according to conducted surveys, these samples are 260 people and the population of experts

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regarding reliability level of 95% and 6% possibility of acceptable error of estimation is 56 people. Since organizational experts were unavailable in this region, the total number of people for distributing the questionnaires was 33 ones, so all of them were considered in questionnaires distribution.

Discussion and Conclusion

Even though our country is potential in tourism, it is taking the first steps and comparing other countries, the country still fails to find an outstanding position for itself in the world. The results show that by cooperation of private section, necessary infrastructures in tourism section have been developed partly and some standard hotels and accommodations have been constructed. On the other hand, visiting hot springs is possible in every season because of its conditions. So, we can consider it as a yearly active industry. Iran has many hot and mineral springs which have healing characteristics for many diseases and building hospitals with expert staffs and specialist doctors can create a good situation for medical tourism in the world. Springs in Iran, especially hot spring in Serein, are not introduced to the world and this causes that hydrotherapy be generally an attraction just for domestic tourists. Job creation and foreign exchange created by hot spring are some advantages that undoubtedly can be used for healing diseases and attracting domestic and international tourists by suitable and extensive announcements and also investment and cooperation of private section in development of accommodations and welfare centers. Documents and records of municipality for issuing building permits from 2003 to 2010 showed that in this period of time the number of issuing building permits increased which explains the constructions expansion and spatial-physical expansion during these years. The meaningful relation between spatial-physical changes in Serein during the exploitation of hydrotherapy treatment springs creates a meaningful relation between vertical expansion of Serein and tourism infrastructures and the conclusion of questionnaires about changing Ardebil to be the capital city of the province which were distributed among householders, experts and managers and its impact on Serein spatial-physical development and development of Serein because of its mineral springs and natural characteristics. So, the following strategies are notable about Serein:

- Presenting a comprehensive plan for tourism development in accordance with rural and small town development;
- Controlling irregular constructions of accommodations;
- Good planning for `physical-spatial development and presenting strategies in suitable directions in Serein;
- Avoiding unauthorized constructions on the farms around the city.

Keywords: Urban Village, Development of Urban Villages, Physical Development, Tourism Effects, Serein.

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Analysis of Agricultural Water Resources' capabilities in Rural Districts of Buin and Miandasht County

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Introduction

Water resources are maybe the most important and the most necessary available resource for human and agriculture section. Agriculture section with almost 11 percent of gross domestic production, 23 percent of employment, and more than 80 percent of feeding the people of the country has a vital role in Iran's economy. Water as the most important factor in agriculture section, has a significant effect on agriculture production. Special climate conditions in Iran such as dry weather, inappropriate spatial and temporal rainfalls are inevitable realities which limit the production and sustainable agriculture management to use water resources of the country correctly and reasonably. In modern management theories that are related to water resources limitation, water is considered as a socioeconomic item and the first human need for different usages including agricultural use. It seems that there are many water resources, but, in fact, available water resources are limited. So, attention to type and method of supplying water resources for agriculture use and suitable usage of them for valuable productions can be helpful in the way of correct management and usage of water resources. This study aims to consider effective indicators in the method of water resources usage for agriculture development and management of water resources. So the aim of the study is to answer these questions: In the studied villages, how are basic water resources supplied? Which villages are more capable of supplying water?

Methodology

This study is a descriptive-analytic one, which aims to assess the capability of water resources in agriculture section. Data collection has been done by using official and written documents; firstly through literature review and secondly by field study. In collecting official documents we used statistical documents of Iran's Statistic Center, Agriculture Organization of the province, Dehyari, health centers of the county, Rural Water Organization; and for field study we used the researcher's self-designed questionnaire. For these propose, water resources indicators, climates, geomorphology, economic, social and environmental factors are classified to 33 items which are related to this study. The study population includes Buin and Miandasht County, located in the west of Isfahan province. The population of this county has been more than 26000 people in 2011. This county has

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46 residential villages and for sample population, 5 villages in different rural districts have been chosen according to parameters like dispersion, population and distance from the county's center. The county's center is Buin which means "warehouse"; it is located 250 km far from Isfahan and its elevation is 2450 meter above sea level. This county includes five districts: Yeelagh, Gorji, North Grachembo, South Grachembo, Sardsiri and five rural districts.

Discussion and Conclusion

Because of water resource limitation, water saving methods and reform of irrigation system should be focused and these activities play an important role in raising water resource capability. Even though there are many water resources, water stress is happening in some rural districts and studies show that more than two-thirds of the provinces in the country are facing with this phenomena. The study results showed that firstly new policies in exploiting water resources and land are necessary regarding to water resource capability in agriculture section, in rural districts. Secondly, correct management of water resources and increasing the efficiency of productivity, job creation and diversification of rural activities without considering capabilities of water resources in rural districts is impossible; and finally, low level of education has negative impacts on efficiency of productivity and also on modern methods of utilizing irrigation systems in the villages. Moreover, there is a direct relation between rainfall and the amount of production in rural districts; fluctuations of production are related to fluctuations in rainfall with an almost regular process and this indicates the lack of modern irrigation systems and dominance of traditional agriculture in the studied area. Considering the water resources of rural settlements in four different types, it was found that Dareh-hovz village is on the top and Masumabad village is on the down low and this ranking is related to environmental diversity. Regarding these issues and according to field studies and observations, it seems that focusing on infrastructures and tourism boom in Dareh-hovz village and development of agriculture in accordance with changes in cropping pattern and consumption pattern in the studied villages especially in Masumabad is necessary. In Dareh-hovz village, variety of economic activities including tourism, in one hand can play an important role in population stability of the village and in the other hand in decreasing the use of water resources in agriculture section. Finally, it can be said that separation of water resources in some villages around and catchment basins like Dashkesen and Aznaveleh villages need economic diversification.

Keywords: Buin and Miandasht County, Water Resources, Agriculture, Rural Development.

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Challenges of Iran's Rural Cooperative Networks

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Introduction

Nowadays, agriculture is an economic activity which plays an important role in gross domestic product (GDP) for every country by providing food safety for its people. Agricultural activities can also have side effects on environment. Investment in agriculture section and its impact on this section's output is an important issue which is confirmed by researches and studies in this field and also by empirical evidence. Investment in agriculture section leads to production growth and job creation in this section and also in other economic sections; therefore, it is very important to recognize effective factors on investment in agriculture section and suitable policies for development and expansion of investment in this section. At the moment, agriculture section and natural resources are the most important sections in the economics of the country because of their vital role in providing the country's need of food and fulfilling food safety.

Regarding remarkable capabilities in resources and production factors including prone lands, different climates, renewable natural sources such as forests, pastures and rich genetic reserves, this section could find a suitable position in the economics of the country and it plays an important role in gross domestic product (GDP), increase of non-oil exports and job creation in the country. One advantage of agriculture section could be extensive networks of rural cooperatives which are organized and efficient. Cooperation is the process of decision making by individuals or groups which is optional, with knowledge and a voluntary decision to meet the needs and fulfill special proposes in special conditions spontaneously or by plans. The formation of empowered committees with new approaches which are more compatible regarding people's rights, can also act potentially as a tool for making people responsible for their own affairs and provide opportunities for government organizations to be responsible for their fundamental duties and their missions. The process of rural sustainable development depends on different factors and condition; development of cooperatives is one of the most important factors which can play an effective role in improvement of work conditions, living the life, production, services, income level and social status of villagers along with government policies. Therefore, given that in 1393 in under development countries, cooperatives could use a remarkable portion of workforce in small scales and they could increase their shares in gross domestic product (GDP) and even increase social unity by using a descriptive - analytic method in this survey, the existing challenges in rural cooperative networks of Iran have been studied to detect harms in order to overcome these problems by presenting suitable strategies.

Methodology

This is a survey which has been done by descriptive-analytic method. Descriptive research is an activity to describe and illustrate objectively and precisely the events and characteristics of the considered society or the researcher's interested issue. Descriptive-analytic method is a research for

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fact-finding and a description of the circumstances in a determined period of time. To study and get the information about the studied subject, we referred to many different sources including managers' comments and ideas, objective observations, interviews, collecting documents and available reports in 1393. While getting necessary information, through investigating the provided collection and also presenting strategic solutions for improving rural cooperatives, we integrated all the information and holistic and analytic methods of study to understand important harms and challenges in agricultural organizations which are covered by rural cooperative organizations.

Discussion and Conclusion

In macro scale, some challenges which rural cooperatives encounter are as follow:

- Government interferes with cooperative management (there is no complete independency in cooperatives)
- There is no professional management for cooperatives and committees in counties, villages and rural districts.
- Members do not have a rational relation with cooperatives.
- In some regions and for some activities, management of rural cooperatives is a family business.
- Cooperatives are insufficient regarding to developmental issues (rural and agriculture development).
- There are lots of registration and licensing authorities for cooperatives in agriculture section and also they are varied.
- Rural cooperatives are government organizations and they are responsible for and act as a trustee of the cooperatives and committees.
- Information and precise statistical data about committees and cooperatives are not integrated and provided.
- Rural cooperative activities in some regions and for some activities are not comprehensive.

Cooperation has existed in human life since very beginning and through time and complication of economic relation; this process becomes increasingly more important. Since this section can create jobs especially in villages, this phenomena can act very successful. Rural cooperative is an operating system. Regarding the existing problems in villages and in agriculture section in our country, this system can solve many farmers' problems and can effect positively on rural development. Rural cooperatives are defined as one of the Iran's operating systems, but these systems encounter with some harms which result in their inefficiency. Definitely, better conditions could be provided for rural residents (villagers) by recognizing and solving these harms.

Keywords: Rural Cooperative, Agriculture, Challenge, Cooperation, Network.

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