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EFFECTS OF DISTRIBUTION MODEL OF OIL WEALTH ON THE ECONOMIC AND MIGRATION OF VILLAGES IN IRAN: CASE STUDY BIRJAND COUNTY

Mohammad Hajipour*, Hassan Afrakhteh, Farhad Azizpour

¹ Faculty of Geographical Sciences, Kharazmi University, Tehran, IRAN

ABSTRACT

In this research, first attempts to critical examine of distribution model of rent or oil wealth between the villages in Birjand County which is under the authority of the government and bureaucracy system. Then, we investigated effects of mentioned model on traditional sectors of the rural economy and spatial migration of rural population. The results show that Iran's oil revenues, especially on a regional scale has been turned into an instrument for the government's spending and are not applied to promote universal and spatial development, such that in the practical model of oil wealth distribution between rural settlements, such revenues have not been utilized to contribute to the economic and productive development of rural areas. The current model of intra-rural oil wealth distribution, with negative effects on the functioning of the traditional sectors of the rural economy, has led to the disruption of accumulation flow of spatial capitals in conflict with the interests of rural associations, which the process is considered to be a driver of spatial transformations by the country's bureaucratic and development system on a path rather than development, especially economic development.

KEY WORDS

Economic Development, Oil Wealth, Village, Agriculture, Animal husbandry, Migration

INTRODUCTION

Infection In human settlements of poor and underdeveloped countries, an enormous need is felt to wealth and capital for present management and planning at development horizon, and as Harvey says: "Capital is the main factor of production and spatial development" [1]. Capital along with population, goods, information and services is one of the factors that can establish economic link among human settlements in the region [2]. However, in the settlement system of least developed countries, urban areas are more preferred over rural associations for management, policymaking, planning and allocations.

Based on a systemic approach and economic history of most countries in the world, villages paly an unrivaled and fundamental role in spatial structure and economic development process of any country [3]. One of the most important economic and productive functions of rural areas (in the countries such as Iran) is helping non-oil exports, which finally leads to the country's reduced dependence on oil income [4]. In general, from experts' view, rural community and specially farmers takes advantage of a special status in the process of national growth and development, because they play a fundamental function in the supply of labor and capital, providing food and consumer market of products and goods [5,6]. Despite the importance of rural areas and their function in the country, they have always been faced with the least development and utilization, and there are numerous obstacles to rural development [7,8,9,10].

To explain the causes of such major depression in rural growth and development, numerous obstacles and problems in social, cultural, economic and physical areas can be classified, and what play more fundamental role in this regard is economic challenges faced by rural areas [11,12,13]. In the midst of economic challenges, a lack of capital and poor rural financial market are of significant importance [14]. This is because capital plays a fundamental role in promoting the development of rural economy and increase in farmers' income [15], but its lack and deficiency caused many rural activities in recent decades to suffer a severe decline, thus an increase in unemployment rate in the rural areas, and the departure of young and well-educated people from rural community [16,17,18,19]. Hence, despite presence of a variety of physical, human and natural capital in rural areas and regions, there is a constant investment [20] by governments for rural and regional development, and in this regard, some governments rely heavily on selling natural resources to meet financial and capital needs of settlements including both urban and rural ones. In other words, despite the fact that some sectors of the economy such as industry has a high ability to produce wealth (wealth generation up to \$ 6 trillion less than 20 recent years [21], some countries such as Iran, Algeria, Egypt, Libya, Saudi Arabia, Iraq, Peru, Ghana and Kuwait have founded the basis for wealth generation in their economy on the sale and export of mineral resources.

Among the countries that their economic cycle is built upon natural resources, there are countries whose economy is driven by fossil fuels [22] and the wealth obtained from the sale and export of oil is the biggest source of the country's revenue [23]. In oil exporting countries, heavy dependence upon oil is much higher than the rest of the world [24].

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*Corresponding Author

Email: mhajipour24@yahoo.com
Tel.: +98-9155623603
Fax: +98-21-88829359

Iran as one of oil exporting countries, since 1951 and oil nationalization has been increasingly dependent upon oil revenues. Since that date, to finance the costs for implementing tasks and to achieve the economic goals such as economic growth, increasing employment, equitable distribution of income, maintain general price levels, economic stability, and improved levels of statements, Iran have heavily relied upon oil revenues [25]. In fact, due to the supply of needed energy for economic development programs and also currency requirements of these programs, Iranian oil is considered to be driving force and key sector of the economy [26,27].

Throughout Iran's oil history and economic dependence on oil revenues, some have considered it as driver of economy, and some as a barrier to development in the country [28]; because, low economic growth in Iran despite billions of dollars of oil revenues represents the implementation of improper investment policies and particularly severe mismanagement and waste of time, materials, facilities, machinery, energy and raw materials in the country [32]. In total, weak and inefficient planning and economic instability due to the influence of trans-boundary factors and developments [33], increase in monetary quantity [34,35], inflation, lack of efficiency, extreme consumerism [36], agricultural stagnation, widening gap between urban and rural areas, reducing the production of food and agricultural products and growth of rural people's migration to urban areas [37], inequality in the area of social dimensions [38] and spatial dimensions [39] and also Rentierism and create a rent state [40] are some of the problems faced by the countries with reliance upon on oil economy such as Iran [41,42].

In this regard, the fundamental question is this: "why states with oil revenues, or, more generally, the countries with valuable mineral resources have not been fully developed despite the considerable value of such revenues which at first glance are an important factor for resource mobilization? Regarding many of these countries, including Iran, it is argued that oil revenues have not been well managed and allocated [43]. In Iran, for rural settlement development, there is too much dependence upon the wealth and capital obtained from oil sales, and on the other hand, due to the mismanagement of oil wealth, these sources have not yet played an ideal role in spatial development, particularly the development of Iran's economy. Thus, using an analytical and in-depth approach and to help learn more about the effects and consequences of oil wealth in economic cycle, the current article seeks to respond to two questions: a) oil rent distribution model on a regional scale, or allocation priority of oil wealth to different regions by Iranian government within 10 recent years, b) the effects and consequences of oil wealth distribution model on the economy of the rural areas in the regions (including the impact on traditional activities of the rural economy and human-local capitals)?

The area under study is Birjand in South Khorasan. The region has been chosen for two reasons: first, it can be divided in the category of areas with a high proportion of people in rural settlements and high density of rural settlements in Iran, and also in the category of the least developed areas in Iran. The necessity and significance of this study is that, based on the history of the research performed on oil-rich countries, local and regional impacts of oil wealth have been less analyzed. Therefore, the current research adopts a relatively new approach.

Theoretical Foundations

Economic development as a dynamic process [3] can be realized followed by fundamental changes in the economy and increasing production capacities including physical, human and social ones. Economic growth is limited mainly due to a lack of capital [44]. In this regard, the issue of resources, particularly natural resources and minerals (both quantitative and qualitative) and resource management, due to its capital-oriented role, has a fundamental place, and the issue whether natural resource abundance is good for the economy or bad, has a longevity as old as economy itself [45]; because natural resources can effectively impact political, economic and social areas [46].

One surprising result of the past research and experience has been that the economy with poor mineral resources has had a performance much better for economic growth than resource-rich economies [47] and people like Lederman and Maloney (2003), Stijns (2005) and Brunnschweiler (2008) in their study concluded that natural resource abundance does not have an effect on economic growth [48,49,50]; in some cases the results have shown that if the abundance of resources leads to economic growth, the growth is temporary [45]. Thus, the evidence suggests that wealth derived from natural sources, or in other words, resource abundance can relatively change the share of value-added sectors in favor of service, economic and political inefficiency, poverty and inequality of economic development, tyranny, corruption and violent conflicts [51,52].

In other words, there is a relationship between the dependence of a country's economy on minerals and natural resources with the indicators including growth, poverty, conflict and democracy [53]. Thus, since the growth rate of countries that have natural resources, due to the above mentioned reasons, is less than other countries that do not have these resources, the term "Resource Curse" is used for these countries [54].

The views held by researchers and theorists in the area of explaining the role and effects of the wealth arising from sale and export of minerals on the economy can be divided into three general trends. According

to the arguments proposed by some thinkers such as Viner (1952), Lewis (1955) and Rostow (1960), mineral resources can be a foundation for economic development [55,56,57]; while some people like Prebisch (1950), Singer (1950), Baran (1957), Hirschman (1958), Seers (1964) and Gylfason (2001) argues that dependence on the wealth obtained from resources is a serious impediment to growth and development [58,59,60,61,62,63]. Accordingly, based on the analysis made by Atkinson and Hamilton (2003), there is a significant negative relationship between natural resource abundance and economic growth [64]. In the meantime, some scholars such as Kronenberg (2004) also believe that in the economy of countries with rich natural resources, economic growth follows with a slow pace [65].

Oil revenues as a capital asset, which Harvey considers it as the lifeblood of all communities [66], and is a source that has the features of capital and accumulation at the same time [37], with its own political economy could have significant impacts on spatial and regional organs as a part of macro and national structure, because nowadays modern capitalism and its political and social support structure have been interlinked to oil and economy from many aspects. Existence and availability of oil capital is a geographic factor that level of difference in development of a country can be explained with it [67]. Hence, the use of oil as the driver of balanced growth engine is not proper, because it does not create a widespread domestic market for consumer goods nor an incentive for local production of capital and intermediate goods [24]. In a country like Nigeria, unlike the objectives underlying development goals and national prosperity, oil has led to the perpetuity of the poverty and reminds us of the motto "Oil Curse" [68]. In general, one of the features enumerated for the countries dependent on oil wealth is that "oil-based states are passionately involved in oil exporting" [24]. Another fact is that whether indulgence in spending funds in oil-rich countries is for all territorial and spatial units or only for extravagance centers?

It is assumed that the budget communication as a blessing in oil-producing countries can neutralize oil's harmful effects on the economy, and based on the past experiences, this has inhibited the development of agriculture and industry. In fact, easy access to giant rents generated by oil is a type of structural bias against agriculture and industrial activities, and any type of activity carried out in this area is heavily dependent upon subsidy [24]. Accordingly, oil operates as an engine of growth for oil-producing countries but has harmful effects at the same time. In the tradition of the theorists proposed on essential goods, Hirschman (1977) has argued, "the relation made by a commodity with the rest of economy reveal that whether it is helpful for the country's future development process or not". In this regard, there is little likelihood that mineral resources are the lucky goods that can lead to opportunities for productive economic activity. Mineral economies can create consumption and especially budget relations that Hirschman (1977) defines them as the government's ability to collect revenue flow relevant to essential goods, yet they perform such function at the price of weakening more productive relations [69]. In fact, budget-based relations are practically a hurdle to manufacturing relations, especially when the rents are enormous, because use of this income flow provides necessary currency for purchase from outside the country, and eliminate motives to make domestic production. Under ideal conditions, economic development can be based on basic commodities that encourage co-existence between consumer, budget, and production relations. However, under mineral source condition, a type of relationship is established only at the expense of another relation [24].

Sound management of natural resources, both natural and financial, is the requirement for development objectives at any country [44]. In addition, there is not any particular commodity that alone play positive or negative role in the development, and its ultimate impact depends on how the product can interact to pre-existing institutions in order to create new institutions [24]. Therefore, the lack of impact of natural resource abundance on economic growth of societies depends on two factors: technology and planning priorities [54]. Palazuelos (2016) reinstates that underdevelopment in oil-producing countries is not the result of the existence and utilization of oil, but it is influenced by some factors such as duality between production and exports, political and institutional weaknesses and fragility, and the weaknesses of these countries before the spread of rents in these countries [23]. Hence, how to manage and allocate resources is one fundamental cause of the inefficiency of natural resources in the countries dependent upon mineral-based economies; in other words, resource curse is the result of the mismanagement of resources and its distribution. For example, although the two countries, Botswana and Sierra Leone, export diamond, Botswana after independence in 1966, by managing the flow of revenues from its natural resources, paved the way for further economic growth, to the extent that this country experienced the highest GDP per capita growth rate between the years 1965 and 1996. While Sierra Leone is deeply mired in poverty, and according to World Bank statistics, the country is among the poorest countries in the world [70]. Accordingly, it can be said that effective development is planned management of utilization of available resources to achieve social and economic benefits [71]. New research suggests that there is a specific form of resource curse at the local level [72,73]. Accordingly, the oil revenues in the countries with unipolar and oil-producing economies has multiple impacts on economic sectors and also the center of geographical space and spatial relations, especially within the urban and rural settlements, and these consequences have direct or indirect, and increasing functions.

There are two broad views about the effects of oil wealth on production in the agricultural sector: a) dependence theorists with an analysis entitled "Oil Syndrome" express that with increasing oil wealth, agriculture face stagnation, because with the increase in oil wealth and increasing food imports, urban

people's taste gradually changes toward foreign food products, and finally leads to the stagnation of production in the domestic agricultural sector; and b) in contrast, the classical economists reinstate that, unlike dependency theorists, increased oil wealth is a cause to an increase in food production. They argue that rising oil wealth can lead to an increase in purchasing power of urban consumers, and this can increase farmers' incentives to produce more food for supply on the market [74].

Gbor research (1990) in Nigeria showed that with the growth in oil wealth and the management of its distribution by government, some events has been gradually happened including growing population, increased demand for agricultural products and even expand food exports, restoring wetlands and agricultural lands, increase farmers' income, improve the economic and social situation of farmers and ultimately reduce inequality between urban and rural residents. How to manage oil wealth within Nigeria's society has led to the creation of a paradigm known as Babangida Paradigm. Hence, the lack of sufficient attention to agriculture and consider it not as significant as industry and services sectors causes some negative aftermaths including negative impacts on economic well-being of workers in agriculture, threatening the quality of human life, and fear of food shortages, and can cause serious gaps in the process of rural development [75]. Accordingly, government's improved performance towards rural areas is necessary to achieve development of rural communities and economy [76], and in this regard, some efforts should be made to coordinate urban and rural development, enhance ownership system of rural lands, deepen and reform rural financial system, improve rural policies, and establish technical tools in the area of rural planning.

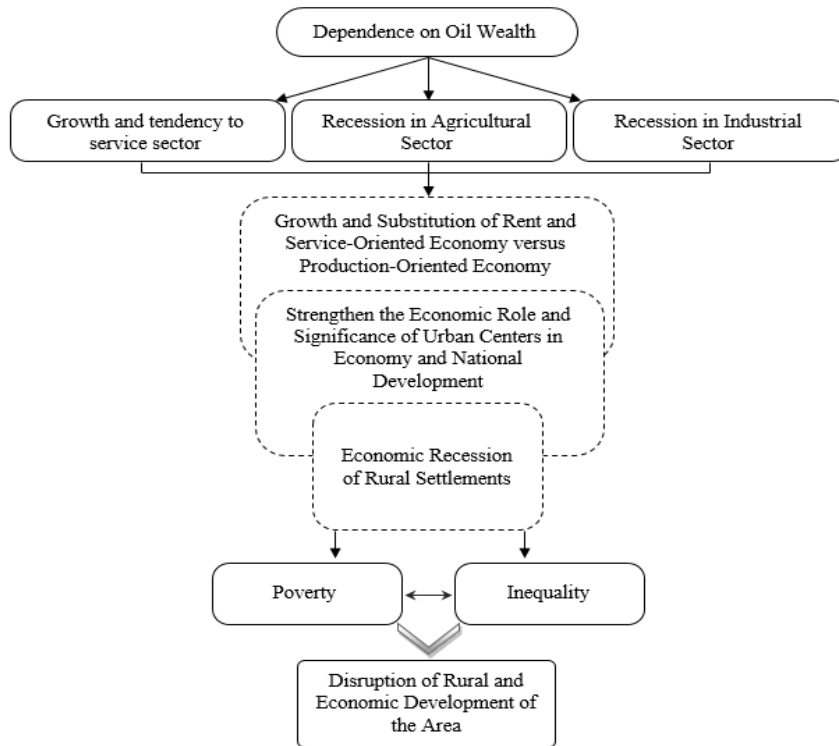


Fig. 1: Conceptual model of dependence on oil wealth

MATERIALS AND METHODS

Exploration of the reality in the current research was in line with the objective and approach adopted by basic and applied research, and in this regard, to gather information, documentary and field methods were used. The theoretical discussions were made through document studies, and the findings were obtained through field survey and econometric research. Field investigations were performed using questionnaire and on two levels: households and villages. The validity of the research instrument was measured, and its reliability was calculated by Cronbach's alpha to be 89%.

The oil wealth rent distribution model among rural settlements in Birjand has been identified on nine macro levels. In addition, through combining the index for evaluating the rural people's point of view on cost and revenue changes in the traditional sectors of the rural economy (cultivation, horticulture and animal husbandry) in the recent years with econometric estimates of agriculture and livestock activities in the

villages under study in Birjand, a composite index was devised known as “the ability to produce wealth in traditional sector of every village”. In this regard, first, by dividing any number by its column average, the difference between the two indices was determined, and then, with the assumption of the weight and importance of the indices, and their algebraic sum, capacity index of value creation in traditional sector of economy for each village was determined. To estimate “spatial flow index of rural-human capitals, the migration rate of each household at each village under study during 20 recent years was extracted using field studies, and finally, the migration of each village in Birjand was estimated. Statistical analysis of data using descriptive statistics indices (mean and percentage) and inferential statistics (Pearson Correlation) were performed using SPSS software.

The statistical community and geographical environment under study is Birjand County in South Khorasan Province as one of the areas in the East of Iran. In terms of political division, Birjand County has a central district and six dehestan (Alghourat, Shakhenât, Fasharud, Kahshang, Shakhen and Bagheran). According to the census made in 2011, the total number of inhabited villages and the ones that have over three households in 17 counties of Birjand County is 247 villages with a population of 52040 populations in 15863 households [77]. For sampling, multi-stage cluster sampling method was used, such that at any county, 25% of the total villages were selected, then using the proportional ratio, the sample villages were determined based on District and dehestan.

At the next step, to determine the volume of the sample households in the villages under study, firstly, using the Cochran formula, the total volume of sample households in each County was recorded, and then, using an optimum rate in each county, district and dehestan, the households in the sample were determined. The total number of the sample villages was 62, and the total number of the households in the sample was 262, and they were interviewed randomly. [Table 1] presents the number of the sample household at each district.

Table. 1: Distribution of the sample villages and household in the rural areas of Birjand County

Dehestan	Number of villages	Number of Household	Number of Sample Villages	Number of Sample Household
Alghourat	52	3865	13	65
Bagheran	109	7390	27	123
Shakhen	13	1587	3	27
Shakhenât	12	983	3	16
Fasharud	24	778	6	13
Kahshang	37	1080	9	18
Total	247	15683	62	162

RESULTS

Allocation of oil wealth between the villages of Birjand County

An analysis of credit pattern and capital allocations to the villages under study in Birjand County during 2006-2015 [Table 2] shows that that the average annual amount equal to 5,339,656,524 Rials is annually allocated to each rural settlement under nine credit titles. The largest share of the credits allocated to the rural areas is the credit attributed to the county’s Governor and mainly to provide rural management costs (the village’s Islamic councils and associations). In the next stage, the cash subsidy granted to the households’ members living in the villages under study has the highest percentage share of the budget and annual credit relevant to villages in recent decades.

In terms of the plans carried out in the rural areas and the capital that is spent in this regard, the findings showed that prosperity-infrastructure projects such as road construction, electricity and water supply, and telephone were considered at the third stage of the annual credit allocated to the rural areas. In the next stage, rural physical projects (including rural guide projects), economic-manufacturing projects (such as well construction, layer removal and aqueduct construction), plans related to treatment and health sector (repair and construction of health houses), administrative-communication projects (building of ICT offices), educational projects (construction and repair of schools), and finally, cultural-religious projects (construction and repair of mosques and religious places and construction of libraries) have received annual credit allocated to rural settlements within the last ten years.

Accordingly, it can be concluded, over the past decade, the major part of credit and assignment of wealth to the rural areas in Birjand County was in the areas where return on profit is generated by doing investment immediately after the construction and commissioning it in rural areas. In other words, oil capital that found its way to the villages in Birjand County (rather than being spent on the sectors beneficial to rural people) was transferred to the areas that the resultant profits were delivered to the

sectors external to rural area, especially to the bureaucracy system components located in urban spaces. Even in some cases, according to local society, this tendency pattern of national capital in rural areas lead to the further transfer of wealth and capital out of the country in favor of cities and more economic weakening of rural households.

Table. 2: Average annual credit and capital received by each village in Birjand in the years 2006-2015

Credit Title	Rials	Percent	Priority
Budget and credit allocated by Department of State (Rural Management Sector).	3020169636	56.6	1
The annual cash subsidy obtained from Subsidy Objective Scheme	1365000000	25.6	2
Welfare-infrastructure plans	500967213	9.4	3
Physical plans	161655738	3.0	4
Economic-manufacturing schemes	85360658	1.6	5
Health and treatment schemes	78290164	1.5	6
Administrative and communicative schemes	53836066	1.0	7
Educational schemes	48180328	0.9	8
Religions-cultural schemes	26196721	0.5	9
Total	5339656524	100	-

*Except for the case 1 that was directly received from Birjand Governor in 2015, and also the case 2 that was 455000 Rials, an adjustment for inflation was made in the estimation of other figures using goods and service price index in 2011/ Source: research findings, 2016.

Economic sector’s utilization of national wealth and capital which in Iran primarily includes oil revenues can be divided in the category of facility provision system and expenditure credits with the relevant plans and projects. The research performed on the situation of the rural households’ utilization of facilities and credits [Table 3] in Birjand County during the past decade showed that only a small part of the population studied in Birjand, i.e. about 32.1 percent, have been able to take advantage of financial and credit system profits.

Table: 3. The rural households’ utilization of rural facilities and credits in Birjand County

Grant Credits and Facilities	Frequency	Percent
No	178	67.9
Yes	84	32.1
Total	262	100

Source: Research Findings, 2016

Despite the fact that agriculture and animal husbandry as the traditional sectors of the economy in rural areas are some of most expansive and significant current economic activities in these settlements, the investigations indicated that, among 84 households receiving credits in Birjand County [Table 4] only 11.8 percent of total loans and credit received were in the field of activities related to agriculture and animal husbandry such as purchase of agricultural implements, construction of greenhouses, construction and purchase of livestock. In addition, out of 63 villages under study in Birjand County, the residents of 16 villages took advantage of these credits. In other words, only 26% of rural settlements in Birjand County received the share of oil for the traditional sectors of rural economy. The total amount of credits and wealth that has been allocated to the villages over the recent decades was around 10180 million rials by applying inflation rate in a period of ten years. The average value of each credit item assigned to the rural people was estimated to be about 330 million Rials.

Table: 4. the agriculture and animal husbandry credits assigned to the rural people under study in Birjand during 1996-2015

Index	Value
Percent of the villagers utilizing agricultural and livestock credit	11.8
Total number of the loans granted (item)	31
The number of the villages that received agricultural and livestock credit	16
The total amount of loans granted (£)	1018000000
The average amount of loans granted (£)	330000000

Source: Research Findings, 2016

Employment characteristics of rural population in Birjand County

According to the employment status of the rural people in Birjand, 9.5% of household heads were unemployed, and 90.5% of them were employed over the past year (2014-15). Among the rural employed heads, 46.9% were involved in part-time and seasonal employment activities, and 43.5% had full-time employment. In terms of job composition and frequency of each head of the household, the studies indicated that each person was engaged on average in two job positions. In responding to the question that what is the main job of household heads in the villages under study in Birjand, the research indicate that the main jobs include horticulture, animal husbandry and cultivation, respectively. A small percentage of people were also workers. The main job of about 14 percent of the households surveyed was defined with the term 'other', i.e. activities such as repair, construction, bakery, freight and passenger transportation [Fig. 2]. Accordingly, it can be seen that human and economic life of Birjand's people especially in the rural areas is closely interlinked with activities taken in the sectors of agriculture and animal husbandry.

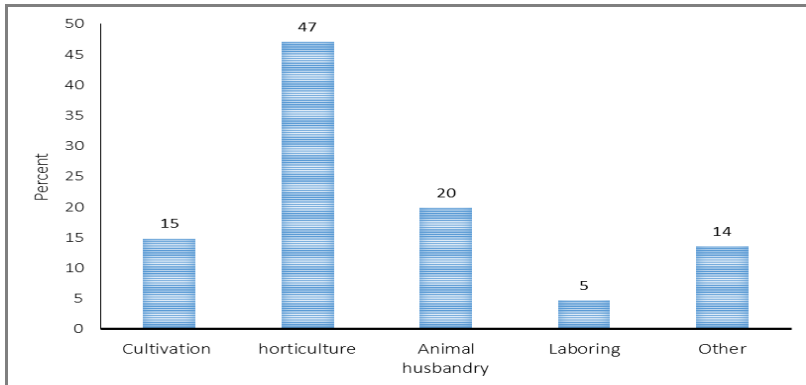


Fig. 2: Frequency distribution of the percent of the main labor of the people surveyed in the villages of Birjand County

Changes of traditional parts of rural economy (agriculture and Animal husbandry) in Birjand County

Cultivation, horticulture and animal husbandry are three common and traditional activities in Birjand. The surveys indicated that in Birjand [Fig. 3], in agriculture sector, the percent of users of horticulture activities is higher than that of main horticultural products in the study area, and two of main garden products in the area include barberry and jujube. Among field crops cultivation, wheat and then barely have the highest percentage of utilization in every village of Birjand county.

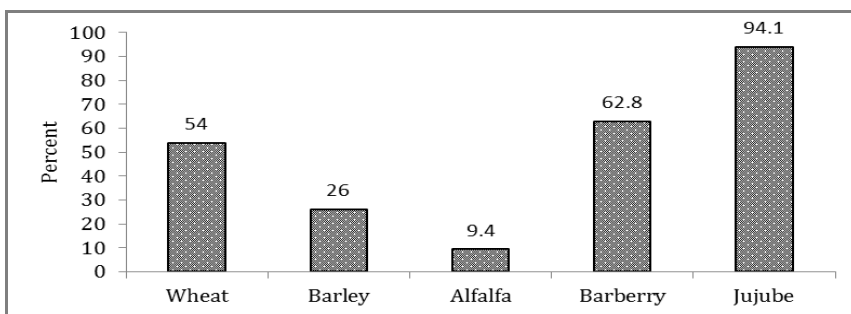


Fig. 3: The diagram for the comparison of the mean percentage of utilizers of major farming and gardening products in each of the villages in Birjand (2014-2015)¹

In terms of added value of agricultural products [Table 5], it was indicated that among the major crop products, average cultivation acreage of wheat in every village is higher than other crops, and then average cultivation acreage of barely was 1.4 ha and barely was 0.054 ha per village. Because wheat production is consumed mainly for self-consumption, and also according to farmers' traditional belief that wheat production increases agriculture's blessing, thus there is more tendency to cultivate wheat. Considering the

production of value added of each agricultural crop in the villages under study in Birjand, it can be found that the production of none of these products has economic efficiency and profit. In response to the question of why despite the lack of the economic benefit from the production of crops such as wheat, barley and alfalfa, farmers continue to cultivate these products, there are two reasons: first, wheat is cultivated due to self-consumption value and fulfilling household's needs and barley and hay due to fulfilling household livestock need (cattle and sheep). Secondly, as the labor force underlying production of the three products are mainly supplied through household's manpower, and agricultural beneficiaries do not pay manufacturing workers' wages, rural utilizers wrongly think that worker costs are free, thus the unprofitability of cultivating agricultural crop does not show itself, and is not tangible. In addition, some factors including low level of experience and skill for planting other crops (innovation in cultivation), the presence of fertile lands and water for agricultural cultivation, low diversification of rural economic activities and consequently relatively high spare time of the household labor force causes rural people to do cultivation even if it has no profit for them.

Among main garden products, jujube product had highest cultivation level compared to barberry, because in terms of climate, in all the agricultural land area in Birjand, there is possibility of planting jujube fruit. However, barberry is faced with significant restrictions and is mainly planted in the north eastern lands of Birjand County. Economically, the calculations showed that both crops have a significant added value, so that they are considered strategic products of agriculture in Birjand and South Khorasan Province.

Table 5. the status of value added of the major agricultural products in the sample villages in Birjand County (2014-2015)

Agricultural Products		Cultivation acreage per village (ha)	Production yield (kg per ha)	Production cost per ha (Rials)	Gross income (per ha)	Value added of per ha (Rials)
Farming	Wheat	2.1	1195	16586849	13802250	-2784599
	Barley	1.4	1076	15679886	9899200	5780686-
	Alfafa	0.045	500	20158581	4181500	15977081-
Horticulture	Barberry	0.9	1434	13315861	20076000	187444139
	Jujube	6.3	1553	4723922	12424000	119516078

Source: Research Findings, 2016

Based on the survey, it was found that in every village, on average, 62.2 percent of the local population is engaged in animal husbandry. The average number of light-weight livestock per village (both traditional and industrial) was 461 heads and the average number of heavy-weight livestock per village head was 27 [Table 6]. Hence, on average, every exploiter had 14 heads of light-weight cattle and 0.8% heavy-weight cattle. In Birjand County, the exploitation of livestock is done mainly on light livestock such as sheep and goats. Economic efficiency of livestock (traditional and industrial) in Birjand area indicated [Table 7] that the production of added value of one head of light-weight livestock is between 3952500 to 4488500 Rials, and added value of cattle and calves rising in the villages of Birjand is almost 50205000. Despite the heavy-weight livestock has greater economic efficiency than light-weight livestock; light-weight livestock rising is more preferred. This is because of three reasons. Firstly, purchase of the initial capital for the purchase and maintenance of light-weight livestock less than heavy livestock. Secondly, the capacity of the natural environment, especially pastures for heavy livestock is less. Thirdly, given that meat and dairy consumption market in Birjand and even South Khorasan has low number of consumers, and the market is distant from main sources of domestic consumption and food factories in some cities such as Tehran, Mashhad and Isfahan (as the main centers for heavy-weight livestock meat consumption), then sale of heavy-weight livestock is done slower than light livestock.

Table 6: The average number of the exploiter and livestock in the sample villages in Birjand County (2014-2015)

Number of exploiter per village	Number of light-weight livestock per village	Number of heavy-weight livestock of each exploiter
32	461	27

Source: Research Findings; 2016

Table 7. Average value added of per light- and heavy-weight livestock in the villages of Birjand (2014-2015)

Indicator	Sheep		Cattle and Calves
	Ewe	Goat	
Total cost for maintaining the livestock (Rials)	5560000	5560000	53110000
Total gross income obtained from livestock (Rials)	10048500	9512500	103315000
Add Value of per head of livestock (Rials)	4488500	3952500	50205000

Source: Research Findings; 2016

Considering the efficiency of production in each of agricultural and animal husbandry sectors as two economic traditional sectors in Birjand, the research made a local survey to reply to this question: “how much change has been happened in the expenses and income obtained from agricultural and animal husbandry activities in rural areas of Birjand over the past decade? And the comments presented by the rural people indicated that the expenses increased at three sectors including cultivation, horticulture and animal husbandry [Fig. 4], such that in the cultivation sector, 50% of the respondents indicated that the expenses were increased to some extent, and 26.7% of increase in the expenses was very high. In the horticulture sector, 56.5% of the rural population reported increase in expenses to be to some extent and 26.7 percent reported it to be too much. In addition, in animal husbandry sector, they assessed the changes in production costs to be high and very high. To compare these three sectors, it should be said that increase in production expenses for livestock activities was lesser than that of cultivation and horticulture, such that 43.1% of the changes in production expense in the livestock sector were reported to be unchanged, because as local people stated animal husbandry depends less on state decisions and service compared to cultivation and horticulture, and is mainly dependent upon pasture and natural environment. Accordingly, it can be said that the economic losses caused by the poor performance of Iranian government (dominant rent-oil political economy) is higher on production activity and spending in rural economy sector in comparison with the phenomenon named drought that it has afflicted Iran, especially East and the area of interest, for nearly two decades.

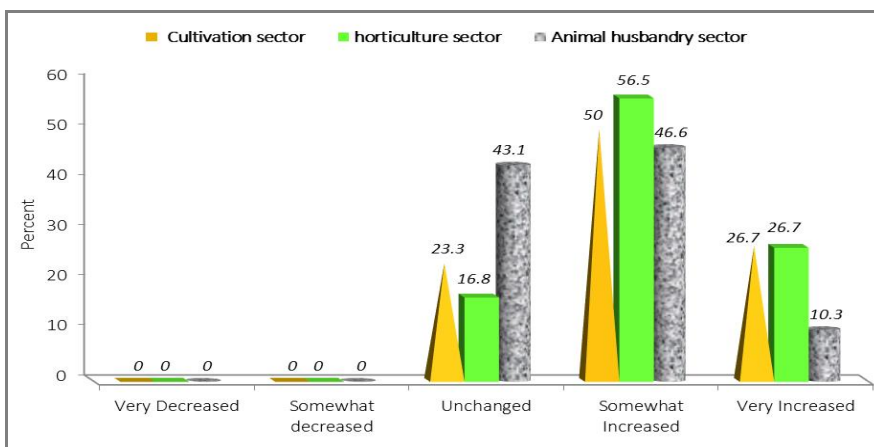


Fig: 4. the graph of the trend of the change in production costs in the traditional activities of rural economy (cultivation, horticulture and animal husbandry) during the decade 2006-2015 from the perspective of the local community in Birjand County

In terms of revenue, in the past decade (2003-2015), production and activity rate in all three sectors including animal husbandry, cultivation and horticulture has fallen, such that according to the local community, income increase has not occurred at any sector. Among the traditional activities of rural economy, production in horticulture sector in the rural areas in Birjand has faced with a more decrease in income compared to two sectors namely animal husbandry and cultivation [Fig.5]. This issue is caused by severe drought impact on horticultural crops such as barberry within the past decade, and also strong inefficiency in warehousing the barberry after production at cultivation season, and these have led to farmers’ financial problems and also wastage and damage of the product before presenting to the market. The final result of this process is reduced revenue from horticultural activities.

Villagers and farmers as a pillar of target society, programs and spatial policymaking in the area of political development and economy, are the most important evaluators of functional system and underlying procedures. Accordingly, a review of the views held by the local community of Birjand’s rural areas showed that [Fig. 6] the government’s attention to the villages, especially in terms of traditional activities of rural economy has not been changed, and dominant tendency is toward reduced attention paid to the rural economy. However, within the last two decades, one of the most obvious obstacles and threats facing the traditional rural economy in Birjand has been the incidence of severe drought, and despite rural people’s urgent need to the government fiscal and program supports, we have witnessed lack of sufficient supervision over such problem.

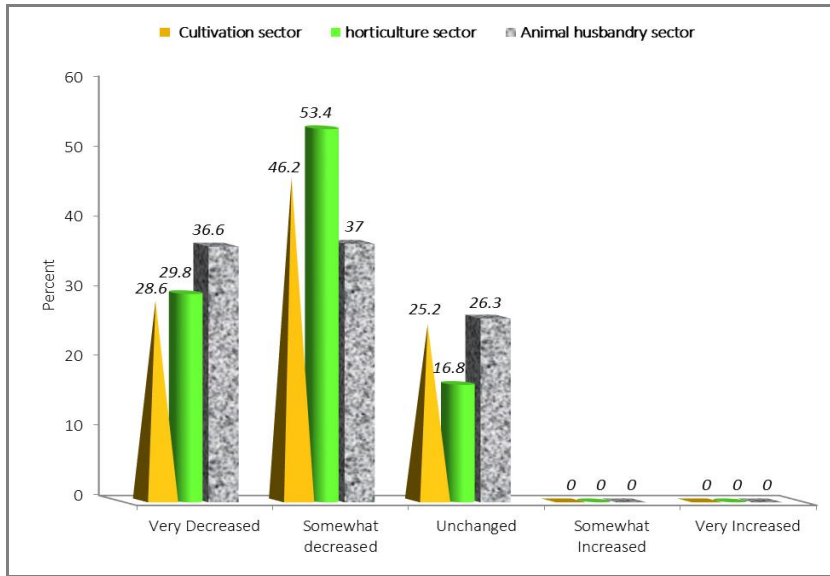


Fig: 5. The graph of the trend of the change in the income obtained from the traditional activities of rural economy (cultivation, horticulture and animal husbandry) during the decade 2006-2015 from the perspective of the local community in Birjand County.

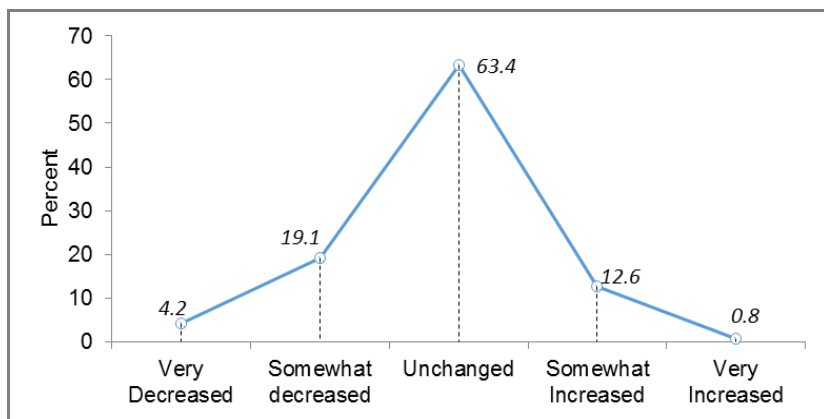


Fig: 6. The trend of the change in the government's attention paid to the traditional activities of rural economy (agriculture, horticulture and animal husbandry) during the decade 2006-2015 from the perspective of the local community in Birjand County

Spatial mobility of rural-human capitals in Birjand County

As one major consequence of the continued recession in economic activity in a place is the loss of active population and potential manpower under the title of labor migration for the benefit of absorbent settlements such as cities, population movement is one of the factors affecting economic growth in a place. A review of opportunity migration of the villages surveyed at Birjand during 1999-2015 showed that [Fig.7] the changes have followed a growing momentum, and within the past 10 years, rural migrations have significantly increased. Thus, it can be said that escape from villages in the study area is rapidly growing.

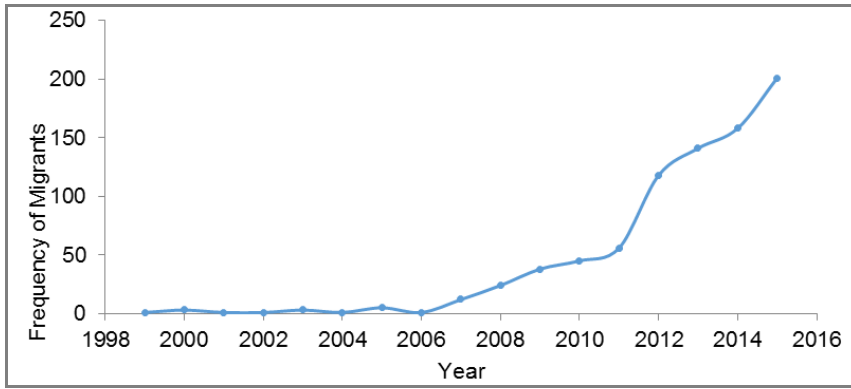


Fig: 7. The trend of rural migrations in the rural settlements under study in Birjand during the years 1999-2016

In response to the question why the intensity of migration from rural areas of Birjand county increases day by day, an analysis of the reasons for the migrations occurred in this region indicates that [Fig. 8] major motivation underlying this process is escape from unemployment. Secondary factors include education, marriage and military service. In this process, gender bias and discrimination prevailing on the rural areas have caused a situation in which men have more opportunities to migrate from the countryside than women, such that in terms of gender distribution of immigrants from the villages under study in Birjand County, 75% were men and 25 % were women.

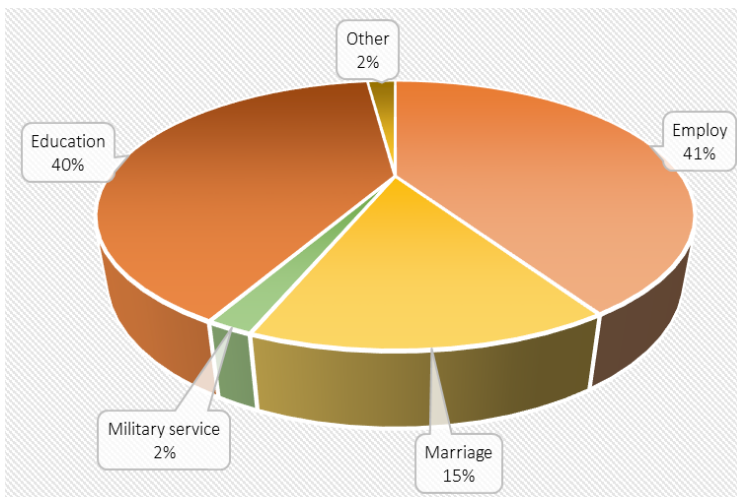


Fig: 8. the graph of the major reasons for the immigration form the villages under study in Birjand County during the years 1999-2016.

Impacts of oil rents allocation on traditional parts of rural economy in Birjand County

Significance test of the oil rent distribution model in the sample villages in Birjand indicated [Table 8] that among the nine dimensions of the model in the villages, the dimensions namely credit and budget allocation to productive-economic projects, the purposeful plan proposed by the incumbent presidency, infrastructure-welfare plans, physical plans, rural management credits, and link-administrative plans have a significant positive relationship with the capability of generating wealth in traditional rural economy.

Table: 8. the results obtained from correlation test between the dimensions of oil rent distribution model in the villages with the potential to generate wealth at the traditional economic sector per village

Variables		Pearson Correlation Coefficient	Sig. (2-tailed)
Rural management sector's credits	Potential to generate wealth in traditional economic sector per village	0.253*	0.002
Purposeful subsidy plan		0.516**	0.000
Infrastructure-amenities plan budget		0.442*	0.030
Physical plan budget		0.281*	0.005
Productive-economic plan budget		0.603**	0.000
Health and treatment sector budget		0.744	0.192
Administrative-communication plan budgets		0.198*	0.010
Training plan budget		0.691	0.058
Religious-cultural plan budget		0.304	0.101

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

A study of significant relationship between the dimensions of the oil rent distribution model at the villages in Birjand with the spatial flows of rural-human capital indicate that [Table 9], among the nine relevant dimensions, the dimension namely productive-economic projects with a negative association have the highest correlation in comparison with the dimensions of spatial flow of rural-human capitals. In addition, the credits granted in the form of the purposeful plan and educational projects such as school construction negatively impacted spatial flows of rural-human capitals.

Table: 9. the results obtained from correlation test between the dimensions of oil rent distribution model in the villages with the spatial flows of rural-human capitals

Variable		Pearson Correlation Test	Sig. (2-tailed)
Rural management sector's credits	The spatial flows of rural-human capitals	0.755	0.122
Purposeful subsidy plan		-0.270*	0.035
Infrastructure –amenities plan budget		0.400	0.68
Physical plan budget		0.237	0.209
Productive-economic plan budget		-0.494**	0.001
Health and treatment sector budget		0.352	0.059
Administrative-communication plan budgets		0.419	0.191
Training plan budget		-0.313*	0.014
Religious-cultural plan budget		0.388	0.063

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

CONCLUSION

Depending upon the extent of dependency and how to manage its distribution, Oil resource as a natural wealth has some effects on the development of the countries at different geographic levels. In fact, the performance of governing political economy system that its main directors are government and bureaucratic system determines whether or not oil can contribute to the realization of economic and spatial development (with its most important function: to strengthen the process of capital accumulation) or it may have anti-development impacts? This is because most views on economic development agree on the point that capital accumulation is a necessary condition for the development of modern economies, and as Alexander Greshengor has stated, three factors including economic enterprise, banks, and states can contribute to capital accumulation or gain the capital in different countries [78]. Accordingly, the present article attempted to present a review and critical analysis of the oil rent distribution between villages in Birjand County which is under the authority of the government and bureaucracy, and then to analyze and interpret economic consequences of the relevant model on the rural economy.

Confirming Douglas's view, the research results show that: "in state economic structure, resource allocation is not primarily optimal" [79], i.e. the distribution of oil rents by the government at geographic areas predominantly aims to advocate and strengthen state revenues and bureaucratic systems rather than providing benefit for rural and local community. In other words, the main priority of management and distribution of oil rents in relation to rural areas has been the sectors and projects whose profit and economic yield shortly after exploitation are transferred to the Treasury and government accounts through paying salaries, paying bills, or rent assigned to the contracts for the implementation of projects, were considered more and more significant. Thus, some Iranian economists believe that since Iran's oil revenues

are a tool used by the government to perform its affairs and meet its needs, it is not utilized for promoting universal development [43].

In an area like Birjand County where agriculture and animal husbandry as the pillars of traditional rural economy are regarded as the most traditional economic sectors in rural economy system, the current oil rent distribution model among rural settlements has not operated very effectively; and improper use of oil wealth to modernize and strengthen capacity to produce value-added relevant to the traditional sectors of the rural economy (cultivation and animal husbandry) and also contribution to the extensive implementation of economic activities as the complement to traditional sectors in villages has had two consequences: an increase in the pressure exerted on traditional sectors of the rural economy despite the exploitation recession in some sectors such as cultivation in order to compensate finance and capital required for the life of rural people and villages. Second, the reduction in income and financial power of the household as a result of economic downturn in traditional sectors of rural economy and also priority of implementation of costly projects for households such as water and electricity supply, implementation of guide projects by planners and authorities involved in wealth source distribution, are two major factors that have led to the imposition of severe financial pressure on the rural people. Based on the relevant trend, the spatial displacement of the rural people has been exacerbated in favor of urban centers or other involved settlements in the form of the phenomenon namely "escape from village", and this can lead to exit of human capitals (manpower and thinking) and intensification of capital in a place rather than village. Accordingly, it could be concluded that, by disrupting spatial wealth accumulation, the current intra-rural oil rent model is in conflict to the interests of rural associations, and follows a direction rather than development, especially economic development.

CONFLICT OF INTEREST

There is no conflict of interest.

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REFERENCES

- [1] Zieleniec A. [2014] Space and social theory. Translated by Mahmoud Shourcheh; Modiran Emrouz Publications. Iran.
- [2] Saeedi A, Taqizadeh F. [2011] Regional network strategy, urban and regional links and regional development: comparative study of Baghmalek and Ardakan areas. Rural-Urban links and relations in Iran. Mino publications. Iran. Tehran.
- [3] Khunaizi TB. [1993] Economic, social, and political development in Saudi Arabia: A historical analysis. Thesis for the Doctor of Philosophy Degree, University of Kansas.
- [4] Lashgarara F, Shaddeli N. [2011] Role of rural production cooperatives in developing non-oil exports of West Azerbaijan province, African Journal of Business Management 5(17): 7588-7592.
- [5] Klotz RJ. [2012] Sustainable Rural Development through Alternative Economic Networks: Redefining Relations in the Commodity Chain for Export Vegetables in Western Guatemala, Ph.D. of comparative sociology dissertation, Florida International University.
- [6] Rezvani MR. [2003] Rural Development: its importance and Necessity in elimination of poverty. Islamic Social Research 9 (3-4): 262-275.
- [7] Mikulcak F, Haiderb JL, Absonc DJ, Newigd J, Fischerd J. [2015] Applying a capitals approach to understand rural development traps: A case study from post-socialist Romania. Land Use Policy 43: 248-258.
- [8] Cunningham R, Bollman RD. [1997] Structure and Trends of Rural Employment: Canada in the Context of OECD Countries" in Bollman, Ray D. and John M. Bryden (Eds.). 1997. Rural Employment. An International Perspective. CAB International. Oxon UK and New York USA.
- [9] Morgan K. [1997] the Learning Region: Institutions, Innovation and Regional Renewal. Regional Studies 31(5): 491-503.
- [10] Von Meyer H. [1997] Rural Employment in OECD Countries: Structure and Dynamics of Regional Labor Markets' in Bollman, Ray D. and John M. Bryden (Eds.). 1997. Rural Employment. An International Perspective. CAB International. Oxon UK and New York USA.
- [11] Vidican G. [2009] Assessing land reallocation decisions during transition in Romania. Land Use Policy 26: 1080-1089.
- [12] Pa'sakarnis G, Maliene V. [2010] Land readjustment for sustainable rural development In: EURO Mini Conference 5th International Vilnius Conference on Sustainable Development: Knowledge-Based Technologies and OR methodologies for Strategic Decisions of Sustainable Development. Vilnius. Lithuania.
- [13] Imboela BL. [2004] the political economy of the local= an inquiry into the dynamics of rural livelihoods vulnerability in developing counters. Thesis for the Doctor of Philosophy Degree in Urban Affairs and Public Policy. University of Delaware.
- [14] Kruja Z. [1997] Capital Access in Rural Virginia. Dissertation submitted to doctor of philosophy in agricultural and applied economics. Virginia Tech University. Blacksburg. Virginia.
- [15] Long H, Tu S, Ge D, Li T, Liu Y. [2016] the allocation and management of critical resources in rural China under restructuring: Problems and prospects. Journal of Rural Studies, 1-21.
- [16] Bloem DE, Canning D, Fink G. [2008] Urbanization and the Wealth of Nations. PGDA Working Paper 30: 1-14.
- [17] Montgomery MR. [2008] The urban transformation of the developing world. Science 319 (5864): 761-764.
- [18] Measham TG, Fleming DA. [2014] Impacts of unconventional gas development on rural community decline, Journal of Rural Studies xxx: 1-10
- [19] Motiee Langeroudi SH. [2011] Iran's economic geography. Jahad Daneshgahi Publications. Mashhad.
- [20] Zasada I, Reuttera M, Piorra A, Lefebvre M, Paloma SG. [2015] between capital investments and capacity building-Development and application of a conceptual framework towards a place-based rural development policy. Land Use Policy 46: 178-188.

- [21] Bremer TVD, Ploeg FV, Wills S. [2016] the Elephant in the Ground: Managing Oil and Sovereign Wealth. *European Economic Review* 82: 113–131.
- [22] Busato F, Maccari N. [2016] Canadian oil sand extraction: Exploring the nexus between economic development and environmental sustainability. *The Extractive Industries and Society* 3: 141–148.
- [23] Palazuelos E. [2016] Rentier oil economies and development: Dynamics and varieties. *The Extractive Industries and Society* 3: 564–574.
- [24] Karl T. [2014] *Riddle of Prosperity*. Translated by Jaefar Khair Khahan. Nashr-Nai Publication. Tehran.
- [25] Abrishami H, Doroudian H, Nouri M. [2013] Challenges in Iranian economy: the confrontation of competing views. Nour-e-Elam publication. Iran.
- [26] Gaskari R, Eghbali AR, Halafi, HR. [2005]. Instability in oil export and Iran's economic growth. *Iran's economic research* 24: 77-94.
- [27] Babakhani M, Sajadi J, Pahlavani K. [2002] The role of oil revenues in the agricultural sector's growth. *Economic Bulletin* 6: 125-134.
- [28] Nobakht MB. [2009] Oil, progressive sector in Iran's uneven development. *Journal of Rahbord* 52: 35-54.
- [29] OPEC [2009] Annual Statistical Bulletin. visit on website: www.opec.org
- [30] OPEC [2015] Annual Statistical Bulletin. visit on website: www.opec.org
- [31] OPEC [2016] Annual Statistical Bulletin. visit on website: www.opec.org
- [32] Rashidi A. [2002] Structural changes in Iran's economy and industrial development bottlenecks. *Journal of Etela'at Siasi* 179-180: 182-199.
- [33] Amirian S. [2012] The role of oil in the provision of public resource funding. *News-Analytic Weekly of Brnameh* 469.
- [34] Jalali R. [2011] Functions of oil in the society. *Mardom-Salari Newspaper* 2773.
- [35] Jonoubi P. [2014] The dominant role of oil in Iran's economy. *Mardom Salari Newspaper*. observed in <http://vista.ir/article/m-behzadi.persianblog.ir/post/10/>
- [36] Behzadi M. [2009] Iran's oil economy. observed at <http://m-behzadi.persianblog.ir/post/10/>
- [37] Katouzian MA. [1993] Democracy, Dictatorship and responsibility of nation. *Journal of Political-Economic Information (Etelaat Siasi-Eghtesadi)* 67-68:1-18.
- [38] Issawi Ch. [1976] *The Economy of the Middle East and North Africa: an Overview* in A. L. Udovitch, Ed, and the Middle East: Oil, Conflict and Hope, Lexington Books.
- [39] Momeni F. [2012] Asymmetric distribution of oil rent and rural development. *Journal of spatial Economy and Rural Development* 1: 55-68.
- [40] Beblawi H. [1987] *the Rentier State in the Arab World*. Groom Helm. New York.
- [41] Mirtorabi S. [2012] *An introduction to oil political economy and Iran's oil issue*. Ghoumes Publications. Tehran.
- [42] Sarkis N. [1984] *Oil and the last chance of the Middle East*. Translated by Arsalan Sabet Saeidi. Amir Kabir Publication. Tehran.
- [43] Raeisdana F. [2015] *An analysis of politics and community*. Gol-Azin Publications. Iran.
- [44] Reksahadiprodo S. [1981] *The role of oil and gas and other resources in the economic development of Indonesia: problems and prospects*. Thesis for the Doctor of Philosophy Degree. Department of Economics. University of Colorado at Boulder.
- [45] Peretto PF. [2012] Resource abundance, growth and welfare: A Schumpeterian perspective. *Journal of Development Economics* 97: 142–155.
- [46] Sandra Badejo I. [2010] *Towards effective development of Nigeria's natural gas: lessons from Alberta*. Thesis submitted to the Faculty of Graduate Studies and Research. Faculty of Law. University of Alberta.
- [47] Sachs JD, Warner AM. [1997] *Natural Resource Abundance and Economic Growth*. Center for International Development and Harvard Institute for International Development. Harvard University.
- [48] Lederman D, Maloney WF. [2003] *Trade structure and growth*. World Bank Policy Research Working Paper 30251.
- [49] Stijns JPC. [2005] Natural resource abundance and economic growth revisited. *Resources Policy* 30: 107–130.
- [50] Brunnschweiler CN. [2008] Cursing the blessings? Natural resource abundance, institutions and economic growth. *World Development* 36: 399–419.
- [51] Andersen J, Aslaksen S. [2013] Oil and political survival. *Journal of Development Economics* 100: 89–106.
- [52] Nazari M, Mubarak A. [2010] Abundance of natural resources, Netherland disease and economic growth in oil-exporting countries. *Energy Economics Studies* 27: 47-68.
- [53] Hinojosa L, Bebbington A, Cortez G, et al. [2015] Gas and Development: Rural Territorial Dynamics in Tarija Bolivia. *World Development* 73: 105–117.
- [54] Gaitan B, Roe TL. [2012] International trade, exhaustible-resource abundance and economic growth, *Review of Economic Dynamics* 15: 72–93.
- [55] Lewis A. [1955] *The Theory of Economic Growth*. Allen & Unwin. London.
- [56] Viner J. [1952] *International Trade and Economic Development*. Free Press. Glencoe. Illinois.
- [57] Rostow W. [1960] *The Stages of Economic Growth*. Cambridge University Press. Cambridge.
- [58] Prebisch R. [1950] *The economic development of Latin America and its principal problems*. Lake Success. United Nations N.Y.
- [59] Singer HW. [1950] The distribution of trade between investing and borrowing countries. *Am. Econ. Rev.* 40 (May): 473–485.
- [60] Baran P. [1957] *Political Economy of Growth*. Monthly Review Press. New York.
- [61] Hirschman AO [1958] *The Strategy of Economic Development*. Yale University Press, New Haven.
- [62] Seers D. [1964] The mechanism of an open petroleum economy. *Soc. Econ. Stud* 13: 223–241.
- [63] Gylfason T. [2001] Natural resources, education and economic development. *Eur. Econ. Rev* 45: 847–859.
- [64] Atkinson G, Hamilton K. [2003] Savings, growth and the resource curse hypotheses. *World Dev* 31: 1793–1807.
- [65] Kronenberg T. [2004] The curse of natural resources in the transition economies. *Econ. Transit* 12 (3): 399–426.
- [66] Harvey D. [2014] *The Enigma of Capital and the Crises of Capitalism*. Translated by Majid Amini. Kalagh Publications. Iran.
- [67] Mitton T. [2016] The wealth of sub nations: Geography, institutions and within-country development. *Journal of Development Economics* 118: 88-111.
- [68] Yeboah, DO. [2011] *Oil as a Resource Blessing for Ghana's Sustainable Development: Drawing Lessons from Nigeria's Experience in Oil Exploration and Investment*. Thesis for Master of Arts, Department of African Studies, Howard University.
- [69] Hirschman AO. [1977] A Generalized linkages approach to Development, with Special Reference to Staples. *Economic Development and Cultural Change* 25 supplement.
- [70] Sachs JD, Warner AM. [1999] The Big Push, Natural Resources Booms and Growth. *Journal of Development Economics* 59: 43-76.
- [71] Timoney K, Lee P. [2001] *Environmental Management in Resource - Rich Alberta, Canada: First World Jurisdiction, Third World Analogue*. 63 J. Envtl. Mgmt 387.
- [72] Arellano-Yanguas J. [2011] *Minerí a sin fronteras? Conflicto desarrollo en regiones mineras Del Perú*. Lima: IEP.
- [73] Arellano-Yanguas J. [2012] Mining and conflict in Peru: Sowing the minerals, reaping a storm. In A. Bebbington (Ed.). *Social conflict, economic development and extractive industry. Evidence from South America*. New York: Routledge.
- [74] Gbor JWT. [1990] *the impact of oil wealth on Nigerian agricultural production*, Thesis for the Doctor of Philosophy Degree in Anthropology. Indiana University.
- [75] Chen LC, Chang SE. [2015] *Building and Recovering Rural Economic Landscapes: The case of liquor and tea industries in Taiwan*. *Procedia - Social and Behavioral Sciences* 202:408 – 416.
- [76] Woods M. [2012] New directions in rural studies? *Rural Studies* 28(1): 1-4.
- [77] Iran Statistical Center [2011] *General Population and Housing Census*.

- [78] Katouzian MA. [2016] Iran, short-term society. Translated by Abdollah Kosari. Nashr Nai Publication.
- [79] Jamsaz M. [2008] Do not be infatuate with oil revenues. Journal of Banking and Economics 91: 52-55. I of Camel Practice and Research, 18(2):345-346.

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