

Position of Agriculture in Economic Growth and Fifth Development Plan

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Received: March 8, 2015

Accepted: May 10, 2015

ABSTRACT

This article studies the position of Iran agriculture in the economic sustainable development and SWOT. After that, annual economic growth of country (seasonal) are based on the calculations of economic account offices of central bank with fixed prices of 2004 in 4 seasons 2013 and spring 2014 that based on them we can see that in first season of 2013, except agriculture, other groups are faced with negative growth of added value. Despite 4.6% growth in gross domestic production in first season of 2014, production level is 8.7% lower than similar value in first season of 2011 which indicates the inactivated position that shares based on the macro indicators of agriculture in fifth development program.

KEYWORDS: agriculture sustainable development, agriculture economy, share of agriculture sector, agriculture sector growth.

1. INTRODUCTION

Basic goals of agriculture development is significant increase in agriculture products, creating enough income for low-income people, obtaining economic independence, preventing irregular migration of rural people, reducing income differences between city and village, meeting population food needs, exporting excess products to abroad, restoring forests and fields, improving health and education and residence in village and employment for increasing population.

2. RESEARCH BACKGROUND

About effective factors and policies of agriculture sector and its subsectors, 5 common model are used:

1. Jonson & H.E. Striner model
2. Szakasit model
3. Cubb-Douglass model
- 4-Transcendental model
5. Simple Linear model

Main purpose of research is determining the policies for agriculture development related to development programs ending in different seasons of years 2011, 2012 and 2013 and indicators and goals of fifth development program.

By establishment of Islamic revolution and beginning of war, due to reduction of oil incomes and depression of industry and mines sector, role of agriculture in production has been increased (moderately 8.79%) and reaches to its peak in 1988. During this year and first, second and third programs of economic development, mean share of agriculture from agriculture in gross domestic production is higher than similar amount in pre-revolution periods but the said share during three first program after revolution with steady trend. In time-series 1963-2004, share of agriculture in employment is in higher level of this added value which indicates low efficiency of labor.

3. RESEARCH THEORETICAL BASICS

3-1 definition of sustainable agriculture

Goal of sustainable agriculture is increasing diversity in field along with increase in bonds and their processes. In sustainable agriculture, sub products or wastes obtained from one component or activity become input for other component. Because natural processes are increasingly replaced by external outputs, effect of external inputs on environment decreases. Purpose of sustainable agriculture is preserving the necessary level of production for meeting the needs of increasing world population without destroying environment which means creating concern for income, extending suitable policies and preserving natural resources. Goals of sustainable agriculture in five total principle is synchronizing agriculture activities with ecologic processes, using suitable technologies and obtaining correct management in agriculture products, not using chemical materials and inputs which are dangerous for environment and health and animals, increase in producing agriculture products using biologic and genetic potential of different species and correct use of resources and preserving and restoring

renewable resources. In agriculture sustainable development, components, indicators and goals leads to increase in added-value of agriculture, especially products of poor countries and reducing environmental effects in agriculture sector [2].

4. SWOT for Iran agriculture

4-1 weaknesses

In order to determine problems and their classifications, problems for agriculture export (weaknesses) in both separate groups (internal and external) are considered (table). Major problems and weaknesses inside the sector in production process.

Table 1: problems (weaknesses) of export in Iran's agriculture

Internal	External
Traditional production method	Weak marketing infrastructures
Small and non-commercial production units	Weak global and regional convergence
Non-specific production	Non-membershi in WTO and strong regional organizations
Lack or weakness of trade unions	Unsuitable bank system for export
Poor position of standard in products	Weakness in implemtenin support policies
Lack of suitable infrastructures for agriculture export	Poor marketing
Inattention to preferences in production	Traffic
High finished cost compared to global costs	Limitation of target markets
Irrational upports of production	Limitations of target markets and GSP
Unsuitable labor	Non-comprehensive view about policy-making in developing agriculture export
Weakness in investing	

1. Based on this system, developing countries have created preferred tariffs for each other [2].

2-4 strengths

Exporting agriculture products of country has weaknesses and strengths compared to other countries including:

- high production potential
- climate and production diversity
- production exclusion in some of products
- relative advantage in producing some commercial products [2].

3-4 opportunities

Opportunities for developing export of agriculture products can be placed in two in-sector (table 6) and out-sector groups (table 7)

Table 2: inter-sector and outer-sector opportunities for developing products export

Description	Opportunities
In-sector	Positive attitude toward export in agriculture ministry
	Educated agriculture labor
	Providing required conditions for developing water cultivation
Out-sector	High demands in gloald and regional market for agriculture products
	Diversity in tastes of global consumers
	Absorbing foreign investment
	Reducing support of developed countries from agriculture sector
	Government intention for developing non-oil exports

Table 3: opportunities for developing product export

Subsectors	Opportunities
Agriculture	-diverse climate and talented land for producing agriculture products in different regions of country
	-idle potential and capacities for production and suitable potentials for second cultivation
	-production potential capacities for developing and improving agriculture products
	-required condition for forming cooperation companies and service companies
	-suitable grounds for supplementary industries
	-producing agriculture products based on food health indicator
	-germplasm and diverse varsities
	-suitable fields regarding resources and expert human labor to increase production
	-internal consumption market for absorbing and consuming excess agriculture products
	-qualitative and quantitative increase in most agriculture products
	-low relative capital for increasing products
	-developing new products in most parts of country
	Animals & birds
-high quality production and competitive capacity in global markets	
-increasing efficiency in production units	
Fisheries	-biologic diversity and production ecotypes
	-exploiting 2700km coast in north and south of country

<ul style="list-style-type: none"> -exploiting internal water resources including rivers, canals, streams, ponds, dams,... -increasing harvest of marine species in South waters -presence of great fishery fleet in far and international waters -developing and increasing efficiency and using new technologies -developing reproduction activities of producing fish -restructuring storage in North and South waters -suitable lands for producing fish -Increasing ability for developing fishery industry -diversifying fishery products -basic revolution in traditional markets and moving toward new markets

4-4 Threats

Threatening factors in agriculture sector of Iran are divided into in-sector and out-sector levels (table 4).

Table 4: threats for developing product export

Description	Threats		
In-sector	Increasing irregular import license (legal and illegal)		
	Inflation and increase in finished products		
	Bad Atmosphere		
	Policy-making and imperfect planning		
	Attitude toward developing non-commercial cultivation		
Out-sector	economic	Severe competition for supplying agriculture products in global markets	
		Non-membership in WTO	
		Sanction of agriculture products by other countries	
		Increase in health indicators of production	
		Imposing unfair export tariff for Iran	
		Adverse advertising against Iran's export	
		Unsuitable cooperation of financial institutions and foreign banks with exporters	
		Increasing political risk	
		Political	Insecurity in area
			Militial threats of US against Iran
	Sanctioning Iran		
		US and allies programs for political isolation of Iran	

4. Share of different sectors in economic rate 2013-2014

Table 5: gross domestic production based on economic activities-percent [3]

Fixed price year 2004	2013					2014
	1 season	2 season	3 season	4 season	Year	1 season
Agriculture group	3/3	-4/7	-4/2	-1/1	9/9	6/8
Oil group	6/2	-8/9	3/6	-11/7	-2/6	-21/9
Industry and oil	8/1	-2/9	0/8	-0/5	-5/7	-7/0
Service	2/7	-1/5	-2/5	-1/2	-1/0	-1/1
Subtracts						
Fee	15/0	-11/5	-1/8	-11/5	-14/9	-20/9
GDP to basic price	4/6	-1/9	-1/1	-1/8	-0/9	-4/1
GDP to basic price (oil)	4/4	-1/1	-1/6	-0/6	-0/8	-1/4

Table 6: share of economic activities in GDP-percent [3]

Fixed price year 2004	2013					2014
	1 season	2 season	3 season	4 season	Year	1 season
Agriculture group	0/2	0/3	0/0	-0/1	0/8	0/4
Oil group	0/7	-1/0	-0/4	-1/3	-0/2	-2/9
Industry and oil	2/0	-0/8	0/2	-0/1	-1/4	-1/7
Service	2/2	-0/9	-1/67	-0/7	-0/6	-0/6
Subtracts						
Fee	0/5	-0/4	-0/1	-0/4	-0/5	-0/8
GDP to basic price	4/6	-1/9	-1/1	-1/8	-0/9	-4/1

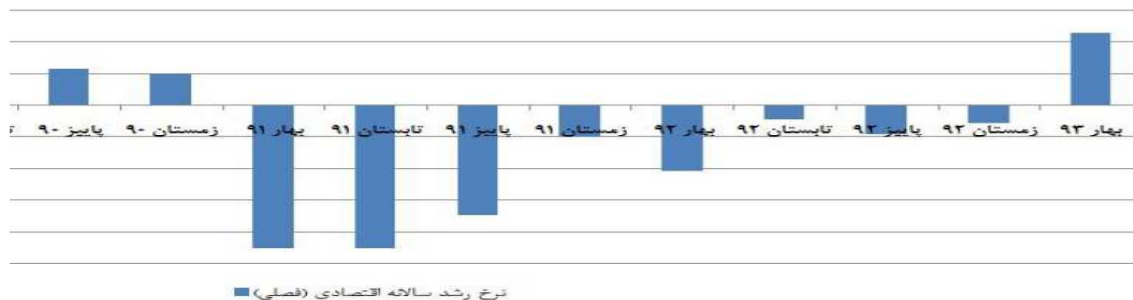
Table 7: GDP based on economic activities-percent [3]

Fixed price year 2004	2013					2014
	1 season	2 season	3 season	4 season	Year	1 season
Agriculture group	37/7	51/1	22/6	44/5	56/1	50/8
Oil group	15/5	36/5	50/9	37/5	45/8	16/6
Industry and oil	17/3	22/4	10/5	20/3	30/3	36/2
Service	26/6	29/8	23/3	26/1	32/2	40/4
Subtracts						
Fee	-29/4	-6/7	-11/3	-9/1	4/8	0/0
GDP to basic price	24/6	31/8	24/6	28/9	38/4	36/2
GDP to basic price (oil)	26/7	30/8	20/3	27/3	37/1	41/7

Table 8: GDP based on internal activities-Billion Rial [3]

Fixed price year 2004	2013				2014	
	1 season	2 season	3 season	4 season	Year	
Agriculture group	33312	130952	193576	29454	65631	32461
Oil group	52477	198743	54732	47557	47013	49441
Industry and oil	119797	510132	126229	127735	145327	110841
Service	290966	1195684	318915	294996	301114	280690
Subtracts						
Fee	16060	62659	17380	16235	15082	13962
GDP to basic price	480498	1972852	506123	483476	524002	459252
GDP to basic price (oil)	498014	1774109	451391	425919	476989	409811

Fig 1: economic annual growth rate (seasonal)



In studying the growth of added-value in different sectors, an important point is that all major economic groups including oil, industry and mines and agriculture in first quarter of 2014 has positive growth while in first quarter of 2013, all groups except agriculture has negative growth.

However, it should be noted that despite 4.6% growth in growth domestic production in first quarter to similar value, production level was 8.7% lower than first quarter of 2011 which indicates inactivated condition which is divided between groups.

4. Macro indices of agriculture sector in fifth program

Regarding important developments in economic activities, agriculture sector has special place in economy and social security. From economic development point of view, agricultural sector has important and basic role in economic growth and development.

Agriculture and natural resources sector has basic responsibilities in meeting food security of country using internal resources, preserving and developing natural resources, improving income level and life of villagers and farmers and suitable mechanisms for growth of production factors.

Recently, agriculture and natural resources sector, due to their vital role in meeting food needs of country, food security and sustainable development, are one of important economic parts. This sector, due to considerable abilities in resources and production factors including agriculture lands and diverse climates, renewable natural resources including jungles and rich genetic reserves have 14% share in GDP, 31% in non-oil products, 23% of total employment and self-efficacy factor more than 94% has especial position in economic sector of country. Requirements of fifth programs are derived from view and policies of supreme leader. Bases on predicted targets in Fifth program, Iranian society has advances knowledge, ability in production and relying on super share of human resources and social capital in its horizon and also health, welfare, food security, social precision, equal opportunities, suitable income distribution, solid family far away from poverty, corruption, discrimination and enjoying environment. Share of productivity in economic growth at the end of program is attention to economic, security, political and environmental value of water with accelerating in harvest, supply, maintaining and consuming runoffs using common waters, purposeful subsidies, improving income and life of villagers by providing rural development plans, industrial development of agriculture, rural industries and new services and correcting pricing agriculture products, comprehensive insurance and qualitative and quantitative development such that the share of cooperation reaches to 25% which is an important duty of agriculture ministry [1].

4. Development axis of agriculture sector and natural resources in fifth development program

Improving productivity of resources, factors and activities in agriculture sector, improving food security factor in basic products and increase in production and processing of agricultural products, preserving, developing and exploiting natural resources and basic resources, market development and export and promoting investment security level and production in agriculture and improving income level and life of farmers, villagers and nomads [1].

5. Policy and practical actions in agriculture sector

Developing research, training and practical extension, customer-oriented and demand-oriented in agriculture sector and enhancement of private sector in this regard can be effective in correcting this trend. Promoting technology and developing mechanization, improving financing for farmers in order to provide machinery and agriculture equipment, reducing wastes by improving harvest and transportation system and rail system and resistance against water tension and improving irrigation and developing new systems are other policies and actions of ministry of agriculture.

Preparing cultivation model, developing and restructuring transform industries by emphasis on the production areas, developing silos and creating infrastructures needed in agriculture product market and equipping and restructuring quarantine in order to reduce threats caused by importing polluted products are considered by ministry of agriculture.

Preserving environment and potential talents of natural resources and destruction factors, extending preservation culture from natural resources with participation of all organizations, enhancing national intent for preserving, restoring and developing natural resources, preventing desertification, controlling and managing risk and natural disaster crises and comprehensive management are recent policies of agriculture ministry for natural resources.

Promoting management of water resources, giving priority to agriculture sector in developing infrastructures, correcting pricing system and increasing products competitiveness, forming institutions and making them efficient, supporting farmers, regulating law of supporting agriculture and other policies are considered.

350 thousand jobs in agriculture sector are realized in fifth development program and based on the predictions, all agriculture products reaches from 102 million tons in 2007 to 143.1 million ton in the last year of fifth development program which needs 7% annual growth.

During fifth program, development of agriculture products from 6.73 million tone to 7.93 million tone, 5.16 million tone to 8.29 million tone, animal products from 3.11 million tone to 6.18 million tone and fishery from 562 thousand tone to 1 thousand and 25 tone in 2014.

Mean rate of agriculture products rate during fifth development program is 9.4, 10.12, 12.5 and 8.4 [1].

4- Legal articles related to agriculture sector in fifth program for development program.

Article 134: in order to reach to self-efficacy in producing basic agriculture products, correcting consumption model of industrial agriculture and knowledge-intensive, promoting added-value in agriculture sector based on sustainable developments are done:

a. promoting efficiency of irrigation through infrastructure water and soil operation, equipping and renewal plans, development of networks, new irrigation methods and mechanization and aquifer plan in 5 million hector of lands.

B. delivering required water for farmers based on cultivation volume in each region and using non-government sector participation.

C. promoting water efficiency index in agriculture sector (increase in production per consumption);

D. providing gradual extension with pests with plant disease, optimal use of consumption, chemical fertilizer, biologic material and drugs, biologic resistance and developing organic cultivation, pooled management and imposing national standards of quality control and agriculture products for covering 25% production level.

E. outsourcing technical-specific activities and ownership of agriculture part to private sector by emphasis on the using qualified expert.

Article 135: in order to support agriculture sectors, production stability and export development and competitiveness and reducing prices, these acts should be done:

A. ministries of industry and mine, agriculture, trade, housing and city-building with policy-making and coordinated planning based on the agreement which is confirmed by planning and monitoring deputy of presidency should act to provide powerful support and developing other industries for agriculture products.

B. criteria and governing policies for diversifying support tools and correcting pricing system of agriculture by determining the guaranteed price of agriculture products approved by economy council.

Note: requirement for annual increase of products with inflation rate will be null from the beginning of program.

Article 136: in order to make the production economic and competitive and increasing export of agriculture products, organizing resources management, preserving basic resources and increasing value and completing value chain of agriculture products;

a. supporting production of agriculture products for compensating part of subsidy and interest of bank loans, grants, subsidies and other incentives subject to optimal national-regional cultivation and criteria and regulations approved by ministry of agriculture.

b. Shared tariffs for basic agriculture products including share, entry time and internal and external tariff by suggestion of agriculture ministry with cooperation of trade and planning deputy.

c. Developing share and time tariff for basic products for supporting domestic production.

Note: share in this clause will be presented by stock exchange.

- d. Production, processing, storing and marketing operation of products, inputs and agriculture products, presenting new agriculture services, actors and certifiers of processes based on criteria, regulations and standards approved by agriculture industry.

Article 137: in order to increase production and efficiency in agriculture land, governments have acted for legal and financial support for formation of legal entities with priority of agriculture corporations for managing or taking incentive policies for agriculture lands.

Article 138: for empowering structure of natural resources management and aquifers for countries, these actions are done:

A. economic value (market and non-market) of natural resources, costs and social benefits and civil projects should be considered in feasibility studies and projects.

B. in order to resolve the conflicts from public and national lands, jungle organization, resources and aquifers are exempted from procedure costs.

Article 139: government is allowed to do these actions for exploiting jungles and resources:

- A. replacing fossil fuel and renewable energies instead of other fuel.
- b. developing agriculture and intensifying fight against traffic of wood and jungle and range products and removing wood imports.
- c. organizing cattle exit from jungles to 75% and supporting cattle production with industrial method.
- d. reducing 55% excess cattle in ranges and replacing it with industrial animal husbandry.
- e. organizing construction in jungle areas.
- f. priority in providing gas for these areas.
- g. developing cultivated jungles.
- h. organizing change of agriculture lands to other uses.

Note: exploiting jungles is allowed only in the framework of board of ministers and exploiting of ranges and natural habitats based on ecologic capacity and preserving it. Violators shall pay the fine two times of jungle price and range and habitat.

Article 140: with the goal of providing food security, government is allowed to do these actions:

- a. financial support for developing industrial salutory and improving traditional and semi-industrial slautery in order to improve health of cattle slaughter.
- b. promoting general level of agriculture support to 35% on this value.
- c. supporting increase in the production of animal protein derived from animal, birds and fishes.

4. Conclusion

Comparing production statistics of GDP without oil shows that GDP has reduced from 415438 billion Rial in first quarter to 409811 billion Rial in first quarter of 203. In first quarter of 2014, 428014 billion Rial has increased which shows 4.4% and 3% increase for 2012 and 2013. Therefore, we can say that non-oil section of economy, especially agriculture group, have higher improvement and have higher share. But instead of 4.6% growth of GDP in first quarter of 2014, production level has reduced to 8.7% lower than first quarter 2011 which shows inactivated section in economy.

Agriculture sector has 13% share in GDP, 31% of non-oil export, 23% total employment and self-efficacy more than 94% in agriculture products have certain position in economic sectors. Based on predicted goals in the fifth development program, Iranian society will have advanced knowledge, ability in production and higher share and social capital in national production and health, welfare, food security, social welfare, equal opportunities, solid family without poverty, discrimination and enjoying environment.

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