FINANCIAL AND ECONOMIC ASSESSMENT OF THE MECHANIZATION AND IRRIGATION FUND FOR THE AGRICULTURAL INITIATIVE AND ITS IMPACT ON MECHANIZATION IN IRAQ FOR THE PERIOD 2009-2018

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Abstract

In view of the importance of the agricultural sector from an economic, social and even political point of view, governments adopt financing policies, through which they aim to provide the necessary capital in multiple forms and forms and agricultural loans represent the most prevalent form, as they provide credit facilities encouraging with very limited or no interest benefits to stimulate agricultural investment and achieve goals Agricultural development and the agricultural mechanization in Iraq witnessed a wide deterioration and a noticeable decrease in their numbers compared to the available agricultural areas, which caused the use of traditional farming methods and the performance of most agricultural operations manually. This led to the underdevelopment of agriculture and its low production and the loss of some agricultural seasons due to the biological nature of agricultural production. To evaluate and analyze the agricultural mechanization fund, one of the most important funds financed by the allocation of the Supreme Committee for the Agricultural Initiative, as the total number of loans granted to this fund reached nearly 880 billion dinars in all governorates, amounting to 7158 beneficiaries, constituting about 40% of the total loans disbursed during the study period, for each of Pullers, combine harvesters, sprinkler irrigation systems and artesian wells pumps And the surface and the study reached an analysis of the achievement ratios of the Agricultural Mechanization Fund for the period 2009-2018 for all governorates, both of the provinces of Muthanna and Maysan were issued at 100% each for the years 2009 and 2010, while the lowest percentages for these years were for Najaf and Anbar 25.1 and 67.8%, respectively. In 2011-2012, the governorates of Dhi Qar and Kirkuk ranked first and second 99.3, 99.5%, respectively, and the lowest were for Basra and Diyala governorates 3.9, 5.6% respectively, in 2013, Karbala came to the fore with 98.2%, followed by Baghdad with 91.9% The lowest was in Najaf Governorate, 35.9%, then Maysan Governorate returned to first place with collection rates for 2014 and 2015 100, 97.2%, respectively and for 2016 and 2017, the governorates of Baghdad and Babylon came at 100-52.9% respectively and finally in 2018, Kirkuk governorate tops 78.2% The lowest percentage was in Najaf governorate, 6.9%. There is a clear decrease in the rates of late loan repayment in this fund due to the fact that these loans are closely related to the guarantees that document the loans. Most of the guarantees of these loans are the bill only, whereby the amount of withdrawals loans of all kinds is proportional to the amount of the guarantee on the bill of exchange 40 million dinars. The study recommended the necessity of conducting a field survey of all the purposes that the agricultural mechanization fund included pullers, combine harvesters, pumps, sprinklers with all capacities 20, 80 and 120 acres to provide decision makers with the actual number of them and estimate the future actual need in a way that suits the available agricultural areas to be based on these data allocating new loans For the purposes of the exact number in order to prevent corruption in contracts and reconsider the guarantees approved by decision-makers to document the loans of the mechanization fund, since some guarantees do not guarantee repayment at the specified times after the time limit Selling or smuggling them to other destinations outside the agricultural sector or the hidden selling, which caused some pullers to go out to work outside the agricultural sector.

Key words: Financial Assessment, Economic Assessment, Mechanization

Introduction

Today, Iraq faces an economy that suffers from a

clear weakness in production and the local market. It is subjected to commodity dumping that is difficult to confront locally. The economy also suffers, in fact, from

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distortions in the price structure, structural imbalances in the balance of trade and manpower, a deficit in the public budget and a debt that shackles its movement towards progress. Achieving an economically acceptable rate of economic growth and bad security conditions that limit the attraction of foreign investment, the development and improvement of agriculture needs many requirements, the most important of which is agricultural intensification and mechanization in order to increase the production and productivity of the land area unit at the lowest costs while improving the quality of agricultural products or at least preserving them, so agricultural mechanization It enabled farmers to implement agricultural operations, no matter how large their size within the specified time, as the implementation of most agricultural operations is governed by specific times depending on the agricultural seasons, that the demand for labor increases in these seasons to exceed the available supply and constitute a real economic crisis and another development requirement is the use The best available natural resources such as soil, water, manpower, environmental factors, etc. farming credit is provide for all purpose production and developing (Saima and others, 2011, 1) The neglect of its machinery leads to waste and a decrease in the amount of production and a weakness in its quality, that the concept of mechanization is not fixed as it develops with the development of other scientific fields, whether by introducing more advanced technologies or by adopting new methods of work with the aim of organizing the circulation of agricultural products among the multiple stages in their preparation processes, The industrial development of mechanization has contributed to the shift of the labor force in agriculture to work in the various industrial fields and to the balance of the workforce between the industrial and agricultural fields. Reasons can be identified that make reliance on mechanization in agricultural production an imperative, including the growing shortage of labor in agriculture and its high costs, In addition to increasing the size of the agricultural service required to achieve the quality conditions for competition and finally industrial agricultural integration, it also has a prominent importance in increasing the quantities of agricultural production, especially in developing countries, including Iraq, in order to achieve advanced rates of self-sufficiency, and the importance of mechanization lies in completing the various agricultural operations at a time Specific and it is very important for the seasonality of agricultural production and its extreme sensitivity to the time element, as well as that of agricultural mechanization oh Another big water drop is the cost of agricultural production per unit area, so delaying the completion of these operations has significant negative effects on the quantity and quality of production, and it also has an effect in reducing crop losses due to the ease and speed of transporting agricultural products to distribution, manufacturing and storage centers as well and contributes to rationalizing the use of natural resources Especially the Arabic Encyclopedia Water, a registered organization. The agricultural sector in Iraq suffers from decades of poor implementation of agricultural operations with its vegetable and animal derivatives and the use of traditional methods, which caused the deterioration of the local agricultural product in quantity and quality and the loss of large amounts of agricultural production during the harvest, transportation and distribution and the lack of agricultural machinery and equipment prevented the implementation of agricultural operations The seasonality in its specific times, which caused a great loss to most agricultural producers and reduce individual and national income, and here came the role of the agricultural initiative of the Iraqi government through the Agricultural Mechanization Fund in supporting and financing agricultural mechanization in all governorates, which included the provision of different machines and equipment starting from the provision of modern agricultural harvesters and harvesters It is of solid global origins as well as loans for the maintenance of old harvesters and harvesters. It also provided water pumps for artesian wells and irrigation systems of various fixed and axial capacities starting from 20 dunums to 120 dunums, which contributed to raising the quantity and quality of production, the role of the relationship between the lending and the farm is important with many farmer using small rural banks (Brady, 2013, 56).

Materials and Methods

Progress in Agricultural Finance (Todd, Manohar, 2010, s-6.)

Since early 2000, a number of organizations have developed innovative ways to finance the agricultural sector, including adapting to microfinance concepts to provide agricultural finance, developing banking practices, and above all must have a say in the nature of agriculture and product marketing methods before entering the field to ensure success in the market, many of these new methods show great promises to donors and many organizations that aspire to achieve maximum success profits, so they implement undefined strategies and scope, including Risk-taking, which is a key feature of agricultural production, as well as the ability to select its clients, with the need to evaluate a selection of successful government interventions among many third-world interventions and highlight successful experiences, there are four objective

areas of financing: addressing the business activity of small farmers in developing countries, using modern communication technology to solve the problem of distance and information regression, farm and family risk management and integrating financial services with other services to address constraints. The multiple faced by most small farmers (7).

Rural finance (Daniela 2015 25)

It is all financial services provided for different rural communities and for all levels of incomes and holdings, and is divided into two parts, partial rural finance and total rural finance, the partial targets rural groups according to their location, either the total includes all services provided to different classes, including rural district centers, and supports all activities produced in the rural community (5).

Result and Discussion

Indicators against which achievement efficiency is assessed (Faris, 2005, 22)

Payback Rate

It is expressed in proportion to the recovery of loans that have been recovered during a certain period and is usually the financial year of the lending institution and is calculated as follows (6).

$$\frac{Total\ amounts\ collected\ during\ the\ fiscal\ year}{Total\ amounts\ due} \times 100$$

The Time Classification of The Arrears

and means the classification of the amounts due or late payment or collection of them to groups according to the duration of the delay time, and the ratio of each period or period of time to the total amounts of arrears is calculated, and calculated as the following (3).

Overdue amounts for a specific period =

$$\frac{Total\ amounts\ in\ arrears\ for\ the\ period}{The\ sum\ of\ the\ arrears\ due\ for\ all\ periods} \times 100$$

Repayment Index (Al Atabi and Al Badri, 2014, 11)

The Repayment Index is a modern standard for measuring the efficiency of collection or repayment efficiency, it compares the real repayment situation with a situation where we assume a complete default, and this indicator is suitable for arranging loans according to their repayment efficiency on a standard basis, and this indicator can be found through the following mathematical equation (1).

$$Rt = \frac{\sum_{t=1}^{n} A}{\sum_{t=1}^{n} A\max}$$

The ratio of arrears to the total outstanding loans (Al -Muhandis, 2005, 22)

This indicator is used to determine the ratio of late loans to total loans granted, as it gives a statement and an indicator of arrears ratios relative to the loans granted as a whole and calculated as follows (4).

Amounts overdue for a given year =

$$\frac{Late\ amounts\ for\ a\ specific\ year}{Total\ loans\ granted\ for\ the\ whole\ period} \times 100$$

The financial evaluation of the mechanization and irrigation fund

Loan collection ratio

Table 1 shows the achievement rates for the Agricultural Mechanization Fund for the period 2009-2018 for all governorates. It is noted that both the provinces of Muthanna and Maysan are at 100% for each of the years 2009 and 2010, while the lowest rates for these two years were for Najaf and Anbar, 25.1 and 67.8%, respectively. In 2011 and 2012, the governorates of Dhi Qar and Kirkuk ranked first and second 91.3, 99.5% respectively, and lowest for Basra and Diyala provinces 3.9, 5.6% respectively, in 2013 the Karbala Governorate topped 98.2%, followed by Baghdad governorate with 91.9%, and the lowest was in the governorate Najaf 35.9%, Maysan Governorate ranked first in the collection rates for the years 2014 and 2015, which are 100, 97.3%, respectively, and for the years 2016 and 2017 topped the provinces of Baghdad and Anbar with 100% for each. Finally, in the year 2018, Basra Governorate tops 99.1%, and the lowest percentage was in Anbar Governorate 6.9%. It is noted from table 2 that the years 2009 and 2013 witnessed a clear increase in achievement rates, where the averages were 71.7, 86.6, 58.9, 71.6, 76.1, and decreased for the period 2014 and 2018 Throughout the provinces, especially those that have witnessed military actions due to their own security conditions, including Nineveh, Salah al-Din, Diyala, Kirkuk, north of Babylon and Anbar.

Late loan collection rate

Table 3 shows the rates of late loan collection for the mechanization fund and irrigation for the period 2009-2018 in all governorates, where the averages for the mentioned period indicate that there is a general decrease in the rates of late loan collection in all governorates,

Table 1: The Number of Beneficiaries and The Amounts Spent in The Mechanization Fund and Modern Irrigation Methods by The Provinces of Iraq For the Period 2010-2016 Amounts In 1,000 Iraqi Dinars.

Province	2010 B	2010 Am	2011 B	2011 Am	2012 B	2012 Am	2013 B	2013 Am	2014 B	2014 Am	2015 B	2015 Am	2016 B	2016 Am	2018 B	2018 Am
Nineveh	685	4659231	146	2585700	121	3388246	286	1234410	188	473110					416	1847000
Salads	1197	12725453	2000	27771980	1320	22969700	255	9482167	351	8555631		6200		2580350	655	
Diyala	1296	13056750	1690	29879066	2103	40462301	849	10446916	174	5024420	154	5872450	124	5675300	651	505000
Kirkuk	182	3642543	377	6303600	195	5089400	69	3030140	162	6106590	6	170000	27	608800	1018	295000
Baghdad	827	13606023	618	9857118	266	6204508	86	3171600	50	3196470	125	4656045	108	2561100	2080	488000
Babylon	231	5852459	187	5248759	293	9978459	183	8544450	148	8627070	329	13580657	25	965000	1396	2063000
Karbala	115	1609800	238	1995924	100	2108077	80	1643050	155	2240000	194	3932710	25	750625	907	1048000
Najaf	46	1719500	70	627000	67	1204530	24	907500	70	2168920	110	3636510	33	972550	420	
Al-Qadisiyah	240	4697300	422	4552002	162	4589049	112	4490900	111	5546600	254	10756970	13	694000	1314	988000
Anbar	1896	20394369	6057	101920792	6010	109983690	553	40171552	207	10585275	0	0	0	0	14723	433000
Dhi Qar	58	2003500	59	1204800	52	1236499	57	3272600	66	3487400	165	6528000	38	1364000	495	543000
Al-Muthanna	96	1358450	114	1770824	93	1902389	7	415500	141	2307328	415	7450965	120	5455180	986	1440900
Maysan	121	2411213	100	1231130	127	2355780	59	2983900	184	8382475	98	4316700	33	1967200	722	
Basra	9	134650	60	566980	88	1211779	13	623920	35	719304	13	791050	9	248700	227	
Interface	306	9847650	276	11004308	316	12369442	291	12514680	168	10204625	303	14207370	15	802365	1675	1422000
Total	7875	97716891	14314	229819983	13193	255507849	2152	114079285	2053	82084218	2147	75905627	661	24645170	42395	11072900

Source: Agricultural Cooperative Bank, General Centre Unpublished Data.

where the highest average in 2016 reached 51.6% and the lowest in 2010 With a value of 1.6, the decrease in the rates of late loan repayment in this fund is due to the fact that these loans are closely related to the guarantees that document the loans. The Agricultural Bank administration in collecting such loans to refrain from paying the farmers in the specified periods, prompting the bank's administration to take legal measures against borrowers in order to collect these loans. In 2009, Najaf Governorate topped by 16.6% and the lowest percentage was in the governorates of Muthanna, Maysan and Salah al-Din, which is 0%. In 2010, Al-Qadisiyah Governorate came first with 4.9%. Respectively, while the period 2014-2018 Wasit and Diyala ranked first, in Wasit 49.5, 45.4, 91.6, 44.8%, respectively, and in Diyala the ratios were 34, 81.1, 82.7, 96.7%, respectively, and the lowest in 2014 and 2015 in Maysan with proportions 0, 0.7% for the ranks, Muthanna and Basra in 2016 and 2018 at 8.2 and 0.4% respectively.

Time classification ratio for arrears

Table 4 shows the chronological classification of the arrears of the mechanization fund and modern irrigation methods for the period 2009-2018 according to the governorates. The ratios were divided into the first two periods 2009-2013 *i.e.,* before the security events in some of the governorates that we previously referred to and the other 2014-2018 *i.e.* after the events and show that they are issued Both Nineveh Governorate in 2009 increased by 25.5%, followed by Diyala Governorate with 17% and Al-Anbar topped in 2010 and 2013 with 23.2 and 29.6% respectively, and in 2011 Al-Muthanna came first with a rate of 11.9% and in 2012 Diyala topped 50%. The lowest time classification ratios for arrears were in both the Governorate of Muthanna and Maysan at 0% for 2009 and 2010 and in 2011 the lowest rates for Karbala Governorate were 7% and in

Table 2: % Collection of Mechanization and Irrigation Fund Loans for 2009-2018%.

The province	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Nineveh	46.8	75.0	46.1	14.7	82.9	17.0	0.0	0.0	0.0%	0.0%
Salads	62.5	84.1	68.6	86.0	69.0	36.6	5.9	0.0	8.5	3.6
Diyala	83.5	93.7	74.8	5.6	82.5	64.5	18.5	5.8	10.9	8.3
Kirkuk	49.8	98.0	73.4	99.5	85.4	31.9	22.5	16.6	87.2	13.0
Baghdad	97.4	97.3	67.0	90.8	91.9	59.1	33.9	100.0	49.2	17.9
Babylon	83.8	86.3	59.7	85.8	79.4	50.1	43.4	44.2	52.9	28.3
Karbala	65.8	95.9	78.9	94.0	98.2	34.5	36.6	52.0	28.5	23.5
Najaf	25.1	85.2	40.6	74.2	35.9	40.1	25.4	33.0	16.8	6.9
Qadisiyah	67.3	70.0	83.4	79.6	89.5	49.8	43.0	19.3	3.1	9.3
Anbar	36.4	67.8	63.7	59.8	53.3	33.4	0.0	34.5	100.0	0.1
Dhi Qar	87.4	86.0	91.3	82.9	78.8	40.6	43.2	0.0	51.5	13.5
Al-Muthanna	100.0	100.0	20.3	62.0	85.0	51.3	50.4	49.8	40.1	40.7
Maysan	100.0	100.0	44.3	71.1	55.3	100.0	97.3	52.1	43.2	83.9
Basra	85.4	86.4	3.9	75.6	83.4	33.3	38.6	49.8	40.3	99.1
Interface	84.0	73.9	67.7	92.1	70.9	28.5	19.3	39.1	18.9	10.3
Average	71.7	86.6	58.9	71.6	76.1	44.7	31.9	33.1	36.7	23.9
Deviation	0.236	0.109	0.239	0.274	0.167	0.197	0.243	0.273	0.293	0.296

Source: Counted by researchers based on data from the Agricultural Cooperative Bank/General Center.

2012 Kirkuk increased by 0%, while in the second period, 2014-2018, Wasit Province topped the rest of the governorates For the years 2014 and 2016 with rates of 20.8%, 29.5% on the rankings, for the year 2015, Diyala governorate topped by 26.2% and in 2017 Al-Qadisiyah by 51.8% and for 2018 in Anbar by 69% and the values of the averages show that the time classification ratios for arrears are very low in general compared to Rate the other criteria according to the Boxes and holsters.

Index of the ratio of late loans to total existing loans

Table 5 shows the rates of late loan collection to the total existing loans for the mechanization fund and irrigation facilities for the period 2009-2018 for all governorates. The average was low and below the correct one for the period 2009-2013 and its highest value in 2012 was 0.9 and the lowest average in 2009 was 0.08, topped Nineveh Governorate increased by 0.3% in 2009 and all

Table 3: Collection of late loans to the Mechanization and Irrigation Fund for 2009-20108 %.

The province	2009	2010	2011	2012	2013	2014	2015	2016	2018
Nineveh	3.4	2.9	8.1	12.3	4.3	60.5	0	0	0
Salads	0.0	1.3	40.5	48.8	6.4	30.0	20.2	29.9	97.5
Diyala	0.9	1.0	4.2	39.6	4.3	34.0	81.1	82.7	96.7
Kirkuk	3.7	0.3	4.4	0.3	2.1	27.5	53.4	0.0	89.0
Baghdad	0.1	0.2	8.1	9.6	3.5	56.1	53.5	72.1	30.7
Babylon	0.2	1.8	14.8	6.3	3.6	38.5	28.7	63.3	35.5
Karbala	3.1	0.8	3.7	3.2	0.4	43.5	30.2	88.1	56.0
Najaf	16.6	2.3	52.1	18.8	32.0	17.0	17.5	84.0	67.8
Qadisiyah	1.3	4.9	0.4	16.5	1.8	28.8	19.6	64.2	24.6
Anbar	0.2	2.9	1.0	6.8	3.2	9.9	0.0	0	0
Dhi Qar	0.3	1.3	2.3	10.1	0.9	16.6	12.3	60.6	33.7
Al-Muthanna	0.0	0.0	73.3	9.0	2.7	20.2	4.1	8.2	30.1
Maysan	0.0	0.0	25.4	69.4	5.5	0.0	0.7	23.3	19.2
Basra	0.4	1.5	12.6	7.2	2.2	15.1	28.4	54.7	0.4
Interface	1.1	3.3	5.7	3.4	33.3	49.5	45.4	91.6	44.8
Average	2.1	1.6	24.3	17.4	7.0	29.8	28.2	51.6	44.7
Deviation	0.042	0.014	0.343	0.197	0.105	0.174	0.232	0.331	0.313

Source: Counted by researchers based on data from the Agricultural Cooperative Bank/ General Center.

Table 4: Time Classification of Arrears for Mechanization and Irrigation Fund For 2009 – 2018 %.

The province	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Nineveh	25.5	10.4	19.3	13.0	12.2	11.8	-	-	-	-
Salads	0.5	7.9	10.3	3.5	13.9	10.6	4.6	17.6	7.0	5.9
Diyala	17.1	9.3	11.4	50.0	10.2	7.1	26.2	19.6	20.9	5.6
Kirkuk	9.7	0.6	2.6	0.0	1.5	6.9	3.3	0.0	0.1	0.7
Baghdad	0.8	1.5	7.3	1.9	2.5	7.4	9.1	5.0	1.1	1.7
Babylon	2.1	7.6	7.1	2.0	7.0	13.7	14.2	8.6	3.4	2.5
Karbala	6.2	0.9	0.7	0.2	0.1	4.4	4.3	4.2	2.3	1.3
Najaf	16.1	2.3	3.0	0.7	6.6	1.5	2.3	2.2	1.9	1.6
Qadisiyah	6.5	13.5	1.6	2.4	1.8	6.6	7.7	8.2	51.8	2.5
Anbar	1.6	23.2	9.6	23.3	29.6	4.3	0.0	0.0	0.0	69.0
Dhi Qar	0.3	0.9	0.3	0.4	0.6	2.4	2.9	2.3	1.1	1.9
Al-Muthanna	0.0	0.0	11.9	0.5	0.3	1.9	1.1	1.2	1.5	0.5
Maysan	0.0	0.0	2.9	0.5	3.8	0.0	0.1	1.2	0.6	0.1
Basra	1.5	1.2	6.3	0.3	0.3	0.40	0.8	0.4	0.2	0.0
Interface	12.3	20.7	5.8	1.3	9.5	20.8	23.4	29.5	8.2	6.6
Average	6.6	6.6	6.6	6.6	6.6	6.6	7.14	7.1	7.1	7.1
Deviation	0.079	0.076	0.052	0.136	0.079	0.057	0.085	0.090	0.140	0.179

Source: Counted by researchers based on the data of the Cooperative Agricultural Bank/ General Center..

other governorates were zero except for Diyala, Kirkuk, Najaf, Wasit and Qadisiyah, in 2010 the governorates of Kirkuk, Baghdad, Karbala, Najaf, Dhi Qar, Muthanna, Maysan and Basra were 0%, the highest value in 2011 In the province of Nineveh, 0.8%, and each of the governorates of Karbala, Qadisiyah and Dhi Qar by 0%, in 2012 Diyala ranked first by 6.8% and in 2013 the province of Anbar by 1.3% and the lowest in Muthanna, Basra and Karbala by 0.01%, while the period 2014-2018

the highest governorate was Wasit for years 2014, 2016, 2018 with rates of 6.2, 16.1, 10.6%, respectively. As for the year 2015, the leader in Diyala was 9.4%, while the lowest was Maysan 0% in 2014 and 0.04% in 2015, Basra in 2016 and 2018 at 0.2, 0 percent Respectively.

Collection index

Table 6 shows the values of the achievement index of the Mechanization and Irrigation Fund for the period

Table 5: Ratios of Outstanding Loans to The Total Existing Loans to The Mechanization and Irrigation Fund for The Period 2009-2018%.

The province	2009	2010	2011	2012	2013	2014	2015	2016	2018
Nineveh	0.3	0.2	0.8	1.79	0.5	3.5	0	0	0
Salads	0.0	0.1	0.4	0.48	0.6	3.12%	1.6	9.6	9.5
Diyala	0.2	0.2	0.5	6.88	0.4	2.1	9.4	10.7	8.9
Kirkuk	0.1	0.01	0.1	0.01	0.06	2.04	1.2	0.0	1.2
Baghdad	0.01	0.03	0.3	0.26	0.1	2.2	3.2	2.8	2.6
Babylon	0.02	0.1	0.3	0.27	0.3	4.0	5.1	4.7	3.9
Karbala	0.07	0.02	0.03	0.03	0.01	1.3	1.5	2.3	2.1
Najaf	0.2	0.04	0.13	0.10	0.3	0.5	0.8	1.2	2.5
Qadisiyah	0.1	0.3	0.07	0.33	0.08	1.95	2.7	4.5	4.0
Anbar	0.02	0.4	0.4	3.21	1.3	1.3	0.0	0.0	0
Dhi Qar	0.0	0.02	0.01	0.05	0.03	0.7	1.0	1.2	3.0
Al-Muthanna	0.0	0.00	0.5	0.07	0.01	0.6	0.4	0.6	0.7
Maysan	0.0	0.0	0.1	0.07	0.2	0.00	0.04	0.7	0.1
Basra	0.02	0.02	0.3	0.04	0.01	0.1	0.3	0.2	0.0
Interface	0.1	0.4	0.3	0.18	0.4	6.2	8.5	16.1	10.6
Average	0.08	0.1	0.3	0.92	0.2	2.0	2.6	3.9	11.3
Deviation	0.001	0.001	0.002	0.019	0.003	0.017	0.031	0.049	0.286

Source: Counted by researchers based on data from the Cooperative Agricultural Bank/General Center.

Table 6: Collection Indexes for Mechanization and Irrigation Fund For 2009 – 2018 %.

The province	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Nineveh	0.53	0.25	0.53	0.85	0.17	0.83	0	0.00	0	0
Salads	0.37	0.15	0.31	0.14	0.31	0.63	0.94	0.94	0.91	0.96
Diyala	0.16	0.06	0.25	0.94	0.17	0.35	0.81	0.83	0.89	0.91
Kirkuk	0.50	0.02	0.26	0.00	0.14	0.68	0.77	0.00	0.12	0.87
Baghdad	0.02	0.02	0.33	0.09	0.08	0.40	0.66	0.55	0.50	0.82
Babylon	0.16	0.13	0.40	0.14	0.20	0.49	0.56	0.48	0.47	0.71
Karbala	0.34	0.04	0.21	0.06	0.01	0.65	0.63	0.67	0.71	0.76
Najaf	0.74	0.14	0.59	0.25	0.64	0.59	0.74	0.80	0.83	0.93
Qadisiyah	0.32	0.30	0.16	0.20	0.10	0.50	0.57	0.65	0.96	0.90
Anbar	0.63	0.32	0.36	0.40	0.46	0.66	0.00	0.00	0.00	0.99
Dhi Qar	0.12	0.14	0.08	0.17	0.21	0.59	0.56	0.50	0.48	0.86
Al-Muthanna	0.00	0.00	0.79	0.38	0.15	0.48	0.49	0.47	0.59	0.59
Maysan	0.00	0.00	0.55	0.28	0.44	0.00	0.02	0.50	0.56	0.16
Basra	0.14	0.13	0.96	0.24	0.16	0.66	0.61	0.60	0.59	0.00
Interface	0.16	0.26	0.32	0.07	0.29	0.71	0.80	0.90	0.81	0.89
Average	0.28	0.13	0.41	0.28	0.23	0.55	0.58	0.53	0.60	0.74
Standard deviation	0.236	0.109	0.239	0.274	0.167	0.197	0.272	0.313	0.285	0.300

Source: Counted by researchers based on data from the Cooperative Agricultural Bank/General Center.

2009 - 2018 in all governorates, the highest average value in 2018 was 0.74, and the lowest average in 2010 was 0.13, in the first period 2009 and 2013, the first rank was in Najaf Governorate for the years 2009 and 2013 which is 0.74 , 0.64, respectively, and the first Anbar Governorate in 2010 and amounted to 0.32, Basra Governorate topped the rest of the governorates in 2011 with a value of 0.96, Nineveh Governorate came first in 2012 with a value of 0.85, the lowest values were in the provinces of Muthanna and Maysan for the years 2009 and 2010 which are 0, Karbala ranked The last value is 0.21 in 2011, Kirkuk 2012 0 and Baghdad Governorate ranked last in 2013 with a value of 0.08, while in the second period 2014-2018 the highest value of the achievement index in 2014 in Nineveh Governorate 0.83 and Salah al-Din in the first 2015 with a value of 0.94 which is also the first in 2016 By the same value, in 2017 and 2018, the governorates of Al-Qadisiyah and Anbar are 0.96 and 0.99, respectively. The lowest values of the achievement indicator were in Maysan Governorate for two consecutive years 2014 and 2015, which are 0 and 0.02, respectively, and in 2018 the lowest value was in Basra Governorate, which is 0.

Conclusions

1. The Mechanization and Irrigation Fund issues the rest of the specialized lending funds with more than 40% of the total loans granted until 2018, indicating that there is a wide demand by farmers for the agricultural purposes included in the fund and the urgent need for it.

2. The average collection rates for mechanized fund loans range from 86.6% in 2010 at the highest level to a minimum of 23.9% in 2018 due to the security events witnessed in some provinces in central, western and northern Iraq, causing the loss of some projects and the destruction of others.

3. There is a decrease in the rates of late loan collection on the whole of all years and governorates for several reasons, the most important of which is the import of some Indian drawers and harvesters originating at the beginning of the fund's launch of loans without conditions of sobriety of origin and guarantee, which caused the loss of some beneficiaries and damage to some parts without the availability of spare parts and this is what caused The farmer's continued inability to pay.

4. The management of the Agricultural Cooperative Bank under the guidance of the High Committee of the Agricultural Initiative documents most of the loans of this fund in the amount of finance as collateral for the loan, which is a weak guarantee of legal bond, which led to the non-payment by borrowers to know in advance that the legal action against them is weak or undeterred, causing the low rates of some of the criteria studied.

5. The increase in the amounts granted to this fund across the provinces and years has caused a decrease in the ratios of the standard of late loans to the total loans that exist throughout the years of study, despite what we mentioned in the fourth conclusion above.

6. The index of collection or payment is good in all provinces and for the duration of the years of study 2009-2018, which shows the success of these purposes and their economic feasibility, which enabled their owners to

pay, where the highest average scoring in 2018 was 0.74, although those years witnessed security events that caused them to decrease in some other criteria.

Recommendation

1. The need to conduct a field survey of all the purposes included in the agricultural mechanization fund, harvesters, pumps, sprinklers at all capacities of 20, 80 and 120 to provide the decision makers with the actual number of them and to estimate the actual future need in accordance with the available agricultural areas to be allocated new loans for the purposes of the exact number in order to prevent corruption in the contracts.

2. Review the guarantees adopted by the decision makers to document the loans of the Mechanization Fund because some guarantees do not guarantee repayment within the specified time after the period of the period of the period of the period of the period of the grant, which caused the decrease of some percentages of the criteria studied.

3. The continuation of the follow-up of tugs and harvesters and monitoring their movement in order to prevent them from being sold or smuggled to other parties outside the agricultural sector or the padded sale, which caused some of the tugs to go out to work outside the agricultural sector.

4. The need to adopt a solid facility for the suppliers or suppliers and the obligation of those entities to provide spare parts and increase the maintenance and warranty period, which increases the chances of payment, as the guarantee gives the beneficiary a guaranteed operating period and the ability to ask the company to make spare parts if it is damaged within the specified period.

The need to continue to finance the Agricultural Mechanization fund and irrigation methods annually in amounts commensurate with the life of the tugs and harvesters as these items are permanently used from the beginning of the agricultural process until the end of the harvest season, which requires continuous compensation for the numbers that disappear annually.

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