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Food Sovereignty and Agricultural Policy of Egypt

V.A. Isaev[a], A.O. Filonik[b]
[a] Lomonosov Moscow State University, Moscow, Russia;
[b] Institute of Oriental Studies, Russian Academy of Sciences, Moscow, Russia
[a] https://orcid.org/0000-0003-1797-3143; [b] https://orcid.org/0000-0001-7455-0361

ABSTRACT

The material conditions for countries and peoples' existence are now changing significantly and sharply and put forward new requirements for the quality of reproductive mechanisms. To a large extent, this process is related to the village, which seeks to increase agricultural productivity, but cannot yet become on a par with industrial potential. The gap between these two parts of a single economic organism is large and is especially noticeable in developing countries and, in particular, in Egypt. This country is extremely poor in agricultural resources; it has been trying for decades to overcome the threat of hunger, sometimes achieving moderate success in some areas. But on the whole, it can only follow events in a catch-up mode. Now Egypt is entering a new phase of the struggle for food sovereignty and an unclear final result. However, the state's current policy is focused on making food security solvable.

Keywords: Egypt; food and food security; agrarian reform; crops; agrosphere; water resources; natural environment; peasant household and farming; agribusiness

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EGYPTIANS — BREAD NATION

Egypt's current food strategy is based on a combination of extensive and intensive agriculture. Related activities include the expansion of land for cereal crops using modern irrigation infrastructure and more vigorous adoption of innovative technologies and agro — biology, in parallel with the introduction of optimized management Production and implementation of a clearer social policy in the village. In this way, Egypt is creating a more progressive model of agrarian growth in accordance with its natural conditions, which in some cases are not devoid of individuality.

This country has, at all times and with great labour costs, literally struggled to survive in a harsh environment. The focus efforts in that direction is still high, even more so than before, when demographic and resource factors were less acute. The only exception nowadays is the experience of the Arabian monarchies, who, with oil revenues even in the heated desert, have successfully conducted agribusiness on local sites and have been so successful as to supply part of the production for export. But most Arab countries, with investment hunger and scarcity of land and water, are unlikely to become the agrarian powers of the Arab East even in the foreseeable future.

Among them, the leader of the Arab world — Egypt — stands out in terms of territorial and demographic indicators. The productive forces of the Egyptian village are chronically under stress. Their constituents constantly seek to compress under pressure not only the hazards of natural origin, including the deterioration of the climate, but also the operational and purely production circumstances.

Nevertheless, the food security situation in the country is more or less tolerable in some

respects. In particular, access to food and its energy value. This is a significant indicator, but it is not the only one and certainly not the only one that determines the food supply of the population.

Already, wheat harvesting in Egypt, while still one of the highest in the world, has reached a level beyond which it is unlikely to increase land productivity by ordinary means without massive application of a variety of technologies. Especially with increasing demand due to projected population increase by 2025 to 111 million peoples and wheat imports growing as more affordable and in demand.[1] Such circumstances make them a major challenge to the food sector of national agriculture.

Meanwhile, Egyptians have long been known as the bread nation, in surplus oriented to flour products, in particular wheat cakes, which are unusually popular in the poorest layers because of their subsidized cheapness, that in per capita measurement requires maximum quantity of wheat. The country is forced to import grain and supplies are growing. For example, 9 million tons were imported in 2011 and in the 2018–2019 season — more than 12 million tons of wheat from a government agency and private companies [1]. The subsidized bread programme provides 150 pies per month to the needy, each costing the consumer 0.1 market value, or 0.03 dollars.[2] But such an operation forces the State to spend more than 2 billion dollars annually from the budget on bread reimbursement.

The persistent poverty of at least a quarter of Egypt's population only exacerbates the social and food situation, which does not fall into crisis at the expense of public assistance alone. The maintenance of a constantly balancing but inefficient economic institution is a major national problem. It has been seriously aggravated since the beginning of the January 2011 revolution by events that, on the one hand — have exacerbated the seriousness of the food situation in Egypt and, on the other, have made the authorities active in that direction.

MANOEUVRING AROUND WHEAT

Egypt is hard–pressed but still self–sufficient in its products (except for strategic products such as wheat, oil and sugar). And rice production, for example, surpasses world leaders like China, India, or Indonesia, but only through the use of new, non–fuel crops. However, this fact alone has not saved him from necessity since the mid-1990s remain among the top three cereal importers since the financial crisis of 2007–2008. Egypt has had to establish itself firmly in this group, responding painfully to the shocks of the volatile world market. On average, food accounted for 17% of imports during this period, as compared with, for example, 3% and 4% of India and Brazil — as neighbours.

Food security is determined both by the presence of food in circulation at the national level and by its availability in households. In the macroeconomic perspective, balance is achievable by fully exploiting the domestic potential of food production or by adequately accumulating sufficient free currency to pay for imports in the right quantities. The microeconomic approach convinces that if they rely on local rural producers they must be able to grow their own food or have the resources to produce through the market [2]. All this creates a system of interdependencies that form the backbone of relations over the grain component of food and affect its durability in any country.

In principle, the observation captures a fairly standard picture of what is happening on the food front, not only in Egypt, but in most other countries as well. Under pressure, they have little choice. And, as a matter of fact, while this model works, there is as yet no reliable way to improve it.

In addition, Egypt has a complex relationship with European practice, where breeders of patented seed have exclusive rights over them and their harvests. The recorded extension

[1] URL: https://countrymeters.info/ru/Egypt#population_forecast.

[2] URL: https://www.apk–inform.com/ru/exclusive/file/1106824.

of plant breeder's rights may not only restrict the rights of beneficiary farmers to deal with seed stocks, but may also negatively affect the livelihoods of smallholders by denying them access to seed stocks, i.e. seeds and plants. Meanwhile, it is estimated that up to 62% of Egyptian producers relied on seeds (from outside funds) stored on their farms to meet agricultural and food needs [3]. This situation arises because previous demands allowed peasants to act in this way without the permission of breeders. By doing so, farmers made their lives easier.

However, Egypt's Intellectual Property Law of 2014 recognized private property rights over genetic resources. And the implementation of new international obligations in the context of the prevailing Egyptian realities requires complex procedures to overcome the legal and political obstacles that, in the circumstances, are detrimental to economic agents. In addition, the market will have to adapt painfully to the new situation.

In general, the legal, social and economic environment in the village has become increasingly complex due to the need to link initiatives with other imperatives dictated by the need to conserve biological wealth, prevent habitat degradation (of which plant life), finally, to counteract the increase in environmental pollution and tension in other dimensions of the deterioration of the material and environmental conditions of the population.

EARTH AND WATER — IS THE STAFF OF LIFE

Such goals are increasingly difficult to achieve, given the factors that combine not only to affect nature but also to undermine food self–sufficiency. The growing climate threat, with its many other challenges, plays a leading role. These include increased salinization in the Nile Delta due to the rising waters of the Mediterranean Sea and urbanization, which penetrates the area of traditional riverine farms and destroys traditional crop production. Reducing Nile run–off is important because of Ethiopia's heavy hydraulic construction and the large number of young people leaving the village for the cities in search of more gainful employment, as well as — the ageing infrastructure of social and other services.

The enormous water scarcity is indeed critical for the entire Arab East, but Egypt is particularly severe when it comes to the availability of moisture in relation to the scale of land and water resources. There are two kinds of extremes. One is that Egypt, unlike a number of other Arab countries, has virtually no rain–fed agriculture that produces basic grains, which for Egypt might be way out.

Another characteristic stems from the fact that it is only through technological maneuvers of various kinds that a delicate balance is achieved between water and agricultural land that is a great achievement when the process is clearly on the limit of what is possible in a situation of exhausting scarcity of both resources.

It is in view of this multifaceted negative impact on the establishment of the National Food Fund and the intention to at least counteract the food imbalance, if not prevent it, The Egyptian Constitution of 2014 enshrined the right of the people to adequate and healthy food, and made the State responsible for the implementation of the Proclamation. The seriousness of intent was also reflected in the reformulation of food security into food sovereignty [3].

The impact of such an act on the lives of fellahs (farmer) and farmers could hardly be instantaneous, but a number of measures had been taken in that direction in favour of agriculture and the food sector, and thus of the entire population.

Such goals are increasingly difficult to achieve, given the factors that combine to affect not only nature but also food security. Against this background, land hunger is becoming more pronounced, with 97% of Egypt occupied by deserts and an equal number of people living in

the delta and the Nile Valley on the remaining lands.

Negative examples are best illustrated in this part of the Egyptian agro–sphere. Here, for example, between 1992 and 2015, an average of 3.1 thous. hectares of old land were withdrawn from agricultural production, resulting in the expropriation of nearly 75 thous. hectares of working land for urban development, and the loss of which was compensated by the introduction of 206 thos. hectares of new land through the development of wasteland. By 2030, another 87 thous. hectares are projected to be lost, which, by definition, will undermine the stability of the food sector [4]. The situation of culturally suitable land remains tense in other agricultural activities within the food sector. According to available data, the total area of irrigated land (and only such land can be efficiently used) in the traditional areas of agricultural production is close to 3.45 million hectares, or 3.4% of the country's territory, with a production rate of 146%, which means that more than one crop per year is harvested. The cultivated area is 5 million hectares, and in fact 85% of this category is located in the Nile Valley and Delta [5].

Against this background, Egypt has two extremes. One, as already mentioned, is the lack of rain–fed agriculture as an alternative to expensive irrigation. Another is that with the Nile, access to water is constantly on the verge of being possible.

In this regard, it is safe to say that bread and water in Egypt are dual and cannot be considered as functionally different categories.

The water deficit reaches 30 billion cubic meters and it takes at least 90 billion cubic meters per year to meet the needs of the country. Meanwhile, the Nile supplies only 55 billion cubic meters of moisture and about 5 billion are drawn from non–renewable underground resources in deserts. Agriculture alone consumes 84% of resources, which poses a problem of water rationing. The topic is so acute that there is a need to reduce the area under rice cultivation from 1.7 to 0.7 million feddans (1 fed. = 0.42 hectare), to save 3 billion cubes meter of water. In addition, 53 types of strategic water–saving crops have been identified that could at least offset the use of available sources.[3]

The ratio of careful water is dictated by its increasing scarcity per capita from approximately 900 cubic meters in 2000 to 700 cubic meters in 2012 and 590 cubic meters in 2017, which is well below the 1,000 cubic meters limit determined by the World Bank.[4] Meanwhile, Egypt already uses 127% of its water resources, of which 27% are virtual water contained in imported agricultural products and foodstuffs. According to some estimates, in 2020, the rate could rise to 47%.[5]

THE PATH TO CEREAL ABUNDANCE?

Despite the relative balance between demand and supply in a number of cultures, there are few indications that Egypt is close to addressing the food problem in all its dimensions and in a manner consistent with the notion of food sovereignty as such. Agriculture is part of the country's current economic trend and is an important element of the national reproductive system. As of 2018, its share of GDP exceeded 11%, it creates 28% of jobs and provides 55% of employment in desert Upper Egypt. In general, however, small farms along the Nile are predominant. They follow a traditional practice that lags behind the growing demands of the State. The high labour input, based on conventional technology, does not work well, affecting the quantity and quality of harvests, soil conditions and the competitiveness of products.

Nowadays, the Nile segment of agriculture is implementing a single crop rotation system, expanding the range of varietal seeds, modern mechanization tools and related services, the

[3] Facts about water resources and rationing in Egypt. URL: www.egypttoday.com.

[4] URL: www.worldometers.info.

[5] What Does the Future Hold for water in Egypt? URL: water.fanack.com.

distribution of which is regulated and controlled.

These measures also have a strong social connotation. The whole block is correlated with the 1.5 million feddans or 630 thous. hectares project initiated in 2014 in the Western Desert and a number of other areas of the country due to their inundation. The opening of the topic was not the first of its kind. It dates back to the 1930s in the last century, when the State first determined its intentions in this matter. It was only 30 years later, when the economy was shifted to five–year development plans, that it went into action, and by 2015, 2.6 million feddans of cultivated land had been developed, which nearly doubled their area.[6] It may have been more successful if the process had not been accompanied by periods of long attenuation and a rare increase in activity at the targeted sites. In particular, as early as H. Mubarak, on the eve of the new century, a programme was announced for the reclamation of 1 million feddans of particularly arid territories, and already in 2017. The Western Desert was supposed to be a direct resemblance of Delta. However, all plans were broken and the project was not implemented on most of the indicators.

In 2009, the same Egyptian leader renewed the campaign to reclaim 3 million feddans by 2030. However, due to the January 2011 shocks, only parts of the project were implemented. As a result, a number of scattered, inefficient farms were created that could not be consolidated into arrays capable of shaping the future of advanced Egyptian agriculture.

The modernization of this huge economic institution continued to be an open subject. Growing problems with the population continue to overstretch the resource base of the food sector, while functioning economies are stretched to the limit and require significant efforts, to avoid over–regulation land exploitation and to maintain the viability of the Egyptian food sector.

[6] USDA Foreign Agricultural Service. GAIN Report. URL: http://apps. fas.usda.gov/newgoinapi/api/report/downloadreport by file name?file name=Egyptian%20 Land%20Reclamation.

Since the launch of the Project to develop 1.5 million feddans, the State has focused considerable efforts on improving the functioning of the agricultural organism. The key to success is seen in solutions that guarantee higher yields of grain farms, introduction of progressive methods of project management in close cooperation of different forms of ownership represented by public, private and cooperative institutions.

IN SEARCH OF A NEW MODEL

Over the past half–century, Egypt has gone through a long road of intensive reforms, most fully implementing the IMF's policy of liberalizing the economic space, developing market relations and making production more private. Reforms have also affected the agrarian sector, adjusting landownership and land use and giving greater latitude to the village's business sectors. Naturally, this was also linked to the changing nature of relations between commercial, peasant and farmers' groups and the State. In general, the whole process can be interpreted as a kind of completion of the market transformation of the country, because "reforms in agriculture and water resources were seen as part of a broader agenda that is now being implemented across the region in various ways and catalyzes the growth of agricultural capitalism [6]. The expansion of the cropping zone is being pursued in two ways: by increasing production in the Nile Delta, as noted, by wetting uncultivated land on the side of the riverbed and by connecting desert areas upstream, with an emphasis on groundwater extraction. This shows a desire to balance the location of the productive forces of the village, to draw in the deserted areas and to expand employment by creating new jobs. At the same time, power proves the ability to act to solve the food problem and convinces the population that it is ready to respond to the public demand with a strong agrarian policy.

Having abandoned the idea of a decision–making economic method, the State retains

regulatory and distributional functions, relating to the financing, management, mobilization of land and water resources and a number of other responsibilities related to the organization and maintenance of projects. The Contract Farming Act is at the centre of the chain of activities. Its provisions paved the way for guaranteed production and marketing of products, limiting the role of speculative capital, preventing rural depopulation due to adverse economic and non–economic factors, which are expressed, for example, in the difficult marketing of crops even at lower prices, in the cost of means of production, logistics, processing of perishable products, etc.

The number of peasant farms in the country reaches 4 million units. Including them in a more productive contract economy offers a chance to bring more stability to agricultural production and beyond. Getting the controls in order, the financing and organization of this mass activity during the process–testing process should lead to an improvement in the quality of all aspects of production and ensure that only the right crops are put on the market at any given time. Streamlining their range is a prerequisite for the sustainable accumulation of strategic food stocks.

The Act also focuses on the consolidation of the country's agricultural sector through the introduction of cooperative farming principles as a tool, working for the benefit of village producers, who thus gain a fairly secure protection from the negative effects of the market and the actions of unscrupulous economic agents.

It is estimated that, as a result of the combined application of the measures envisaged, the incomes of rural workers may increase by a third compared with the previous practice, The State did not pay due attention to the balance between domestic production and consumption and did not regulate crops.

In the hope of the effectiveness of the measures to transform the traditional Nile part of the agricultural sector and the expected high performance of large–scale desert projects of the commercial plan, the State hopes to level the overall development of the village, Combining the potential of dual reproductive systems to achieve Egypt's food security.

To this end, more stringent rules have been established in the planning of specific projects and the timing of the incorporation of land plots, in order to cut off informal links in land operations, land development and contract farming.

A legislative framework has been developed to regulate land and water management systems, regulating the flow of water under the supervision of the Office of the President, following the example of the High Dam and other major national infrastructure projects. It provides financial incentives for small farmers to save water, to follow established crop rotation and to use economic, logistical and other schemes to accelerate the supply of agricultural produce to food markets. In addition, small–scale contractors are being set up to develop services in villages and to assist small–scale producers.

Within the framework of the post–revolutionary sentiments, a joint–stock company has been set up, consisting of Egyptian governing bodies, administrative bodies of agrarian projects and banks, on the one hand, and farmers,— on the other, as a means of counteracting abuses in investment and financial reporting on specific projects. In this way, the State markedly transforms farm practices, encouraging them to optimize social and labour relations within projects and introducing elements of democratization into the general atmosphere of local institutions.

IN THE DEVELOPMENT OF THE TOPIC

Against the backdrop of high–profile attempts to give impetus to the emerging desert economies, which had previously been highly resource–poor and embodiment of the inertia of reproduction and the stagnation of the village, there is hope for the consolidation of a sustainable discourse,

laying the foundation for a new quality of Egypt's agrarian system.

However, there are circumstances that could delay this process. In the rural hinterland, which is now more actively involved in modern agrarian activities under the 2014 programme, there is still a centuries–old mistrust of the Government and of power in general. The resulting inertia and uncertainty in the future, multiplied by poverty, do not necessarily lead the periphery of the village to believe in the success of any endeavors from above and to be willing to follow orders from above.

In addition, the desert part of the generally–Egyptian project covers territories whose legal status is not visible because the unequal plots are included in the state domain, are privately owned or used by different persons without proof of title. Breaking established ties and relationships against this background can also be seen as a constraint to growth. Moreover, with low productivity and low investment, farms are not sustainable and their ownership status does not allow regular access to finance, technology and mechanization, allowing them, at best, to enter the local market.

The State has proposed a modified system which, to some extent, takes into account the experience of the Al Jazeera cotton project of Anglo–Egyptian Sudan. The work in this case is directed by the Egyptian Village Development Company, which interacts with major Arab and foreign investors, for whom the land–ownership ceiling is set at 100 thous. feddans. The land is divided into blocks of 1,000 feddans and leased to private farmers, who attract small farmers as simple producers of goods. Revenues are regularly distributed among the parties on the basis of negotiated agreements.

This is — a weakness of the projects, as profit–sharing tends to be controversial. The latter is particularly true of people from the lowest strata of the village and urban unemployed, who are socially integrated into the projects and account for up to 20% of those employed and have no experience or habit of regular farming. The resulting conflicts of any etiology are resolved in the conciliation councils — important organizational structures of projects intended to resolve conflicts between workers and land lords who may encroach on the interests of small producers.

This type of action is urgently needed, as, in the face of continuing demographic pressure and a chronic shortage of cultivated land, desert development remains the only alternative to the threat of land hunger and cannot be discredited. Especially as land–use operations on the desert south–western fringe of Egypt are expected to house 4–6 million Egyptians and to create up to half a million jobs within 10 years by 2020, 80% more efficient use of irrigation, to expand the use of mechanized means to increase productivity and increase wheat and cereal yields by 20%. The same standard is set for the growth of the incomes of peasants with plots of less than 3 feddans, which make up 85% of the total [7].

Today, such a goal is perceived as elusive. Indeed, the situation is constantly close to the boiling point, and the authorities have no choice but to reverse long–standing trends and open up new opportunities. Only the creation of a more stable basis of the village's reproductive system can be a real counterweight to the multi–location that generates conditions for dispersed farm forms with varying degrees of stage maturity. Their consolidation into consolidated agrarian enterprises with a more modern production and technological base will create conditions for the formation of a more homogeneous social and economic mass of rural owners ready to carry out national tasks.

AGRIBUSINESS — AGRIBUSINESS FRAMEWORK

It is no coincidence that the current President of Egypt has set the goal of accelerating the construction to produce tangible material results two years after the project's launch. The appeal shows how interested the State is in the

transformation of the village, although objective difficulties are palpable. It is not just a question of mobilizing financial resources, which in principle can be sufficient. It is more difficult to reformat mass consciousness and to integrate the peasant households and farming masses into the changing forms and norms of labour participation in projects. The difficulty is that it will take time for projects to establish themselves as incubators for a generation of self–sufficient farmers and well–targeted workers.

The experience of the development of the agrarian machinery in Egypt shows that the alleviation of the food situation must not only be the result of the organizational and technical reorganization of large segments of the agrarian sphere itself, but also as a consequence of the introduction of world science and practice, of which agribusiness is an important channel. Supporting it as a developing institution is also a matter of special concern to the authorities.

This business is seen as a platform for building productive linkages in domestic and export–oriented horticultural production, as a "sandbox for high–end crop production, rational wetting, storage and post–harvest processing. It is agribusiness that gives rise to the hope that it will be easier for agribusiness to become self–sufficient in the much–needed types of crops, while at the same time ensuring the necessary competitiveness of Egyptian products in the external market.

Indeed, agribusiness seems to have such potential for the future. So far, he's just preparing to be the growing nucleus of Egypt's rural economy, but if we succeed, we can expect to multiply progressive practices, which are concentrated not only in the "near–nuclear space, but also introduced under its influence into the productive fabric of the food sector. These actions are matched by a more ambitious desire to turn agribusiness into a powerful framework for national agriculture, which will be built as the interest of the village's active economic agents in high–productivity work in the countryside grows.

If the agrarian policy successively promotes a move towards further change in the social and economic structure of the Egyptian village, it will significantly accelerate the transition to intensive forms of food sector development. There will be no need to change the established model of the existence of the village in a two–fold — river and desert — environment–dependent format, which, in general, may remain valid in the present circumstances, especially since there is no alternative to it.

It is obvious that the imperatives of the looming food crisis are pushing the State to take rather decisive measures to overcome the rubble that is preventing the national grain market from being properly filled. In principle, the current situation can be seen as evidence of a fuller transition of Egyptian agriculture to a new quality, in which elements of the agro–industrial complex are formed. Beyond that, the process encompasses other aspects related to the country's food empowerment. The production of artificial foods, in particular meat products, which, over time, could alleviate the nutritional problems of the population, is now being discussed.

This requires the management of natural, financial and labour resources, which is carried out by the competent authorities in accordance with current needs. Meanwhile, the status and quality of decisions related to the transformation of Egypt's agrarian complex, the reduced tone of administrative structures, bureaucracy and lack of coordination between departments and institutions of different hierarchies are still far from being a strength of the State, while some progress has been made, shortcomings are gradually being overcome.

Still, given the general practice of Egyptian life, it is more reasonable to expect that agriculture will be difficult to develop, recording past achievements in a number of high–commodity agricultural activities, but still lagging behind in the grain segment. It is possible that in the future this moment could become a kind of "grain

curse for Egypt, analogous to oil for Arabian monarchies. The difference is that for Arab oil exporters it is a figure of speech, and for Egypt — it's a hard reality.

However, this is a huge sector that is entering a period of deep modernization of the material base of agricultural production and transformation of the village's internal structure, as well as technical re–equipment of labour in agriculture and grain production. It also creates an environment that seems to have a more subtle attenuation of public consciousness and greater social responsibility of the rural population for the results of work. This brings to the fore aspects designed to revitalize the State's agrarian policy and to ensure the accumulation of basic prerequisites for strategic gains on the food front.

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ABOUT THE AUTHORS

Vladimir A. Isaev — Dr Sci. (Econ.), Professor, The Institute of Asian and African Studies, Lomonosov Moscow State University, Moscow, Russia
v-isaev@yandex.ru

Alexander O. Filonik — Cand. Sci. (Econ.), Leading Researcher, The Institute of Oriental Studies of the Russian Academy of Sciences, Moscow, Russia
Fao44@mail.ru

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