

ACQUISITION OF AGRICULTURAL TECHNOLOGY FROM FAR EAST COUNTRIES DISCUSSED

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[Interview with Dr Yusuf Wali, minister of agriculture, by 'Abd al-Rahman 'Aql; date and place not given]

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[Text] The talk about President Mubarak's tour of the Far East countries will continue to attract a good part of our attention because the results achieved by the delegation accompanying the president are influential in our economic relations and because they revive old relations with some of these countries and strengthen and enhance new relations with others. Despite the difference in the regimes of the countries visited by President Mubarak, the emphasis has been laid on one thing, namely, how to benefit from the experiences of others in the sphere of production, regardless of who these others are.

A lot happened on this long tour, the discussions and negotiations occupied pages in the press daily during the president's tour abroad and the Council of Ministers has discussed the outcome of these negotiations. The most important issue preoccupying the president throughout the tour was the issue of supplying food to Egypt and of how to achieve self-sufficiency in food. In China and Japan, attention focused on rice seedlings, on developing Egyptian fish farms and on acquiring the right technology to enhance Egypt's agricultural production. In Pakistan, there was agreement to obtain buffalo strains to improve the Egyptian strains and enhance their production.

Considering that the primary concern of every home in Egypt is how to get food, it is necessary that the dialogue with Dr Yusuf Wali, minister of state for agriculture and food security, concern itself not only with the results but also with how they are going to be applied and utilized and to what extent will they contribute to achieve self-sufficiency.

Far From Protocol

[Question] Disregarding your position of responsibility, what is your impression of the president's Far East tour and what is the impact of this external activity on the internal situation?

[Answer] President Mubarak's visits abroad are aimed at external aspects concerning the area, such as the Palestinian problem. As everyone knows, the president discussed this issue in detail in his press conferences in Japan and Pakistan and in all the Asian countries covered by the tour. The president's thinking on this issue is clear, namely, the establishment of a just and comprehensive peace. But I can say that it was obvious throughout the tour that the president had on his mind a goal that he stressed in all his moves, namely, to achieve domestic progress for the country. He made quick comparisons of the technologies he saw in these countries. He was constantly comparing everything abroad and considering the possibility of adapting it for use in Egypt. He asked the delegation after every meeting we held: What have you done, what have you gotten and what new technology have you acquired that can be used in Egypt? In China, after completing the talks and while on his way to his residence, the president said to me: Get in the car with me. The president was not so much concerned with protocol as he was interested in following up on the delegation's work and in asking me about the results achieved.

We Knew

[Question] Is the technology and are the new agricultural methods we will acquire fit for agriculture in Egypt and for the Egyptian farmer? Are they easy to apply and to acquire?

[Answer] Regarding the technology we have acquired from China, such as the machinery for planting rice seedlings and harvesting rice, we had been aware of the presence of this machinery in China and had received pamphlets from the Philippines International Rice Center on this machinery. After studying the pamphlets, we learned of innovations in China on this type of machinery that suit our conditions in Egypt. Chinese experts had designed and built this machinery for the Philippines. It was necessary on our part to be aware in advance of the technology available in these countries in order to acquire it and evaluate its use locally. Without such advance knowledge, these countries do not rush to announce the technology available to them. The merit of this machinery is that it does not completely mechanize rice cultivation and that it requires a degree of manual labor. Therefore, it is a technology compatible with Egyptian agricultural conditions. It is possible for the Egyptian farmer to purchase such a seeder and harvester because it costs no more than 700-800 pounds. It is not only the low cost of the machine. We also want the technology we receive from these countries so that we can manufacture locally because of its simplicity, and the possibility of manufacturing this machine at the war plants has been studied. Generally, it was agreed with the Chinese side that it would supply enough machinery to cultivate 500 feddans with rice, with the acreage increased gradually to reach 10,000 feddans. The Chinese side has shown its readiness to send the experts needed for implementation. On the other hand, I discussed yesterday with the Ministry of Agriculture undersecretary for mechanization affairs, the general director of the Center for the Development of Industrial and Engineering Designs and private sector experts the question of manufacturing locally 15 of the rice seeding and harvesting machines now used in Japan.

Highly Productive Strains That Can Be Cultivated Mechanically

The second point in increasing rice productivity and spreading mechanization pertains to the acquisition of new highly productive strains that can be cultivated mechanically. Some of these strains mature quickly. We have, for example, acquired a rice strain--(Rin Zao)--that ripens within 120 days, after which it is harvested to a height of 20 centimeters above the ground and then irrigated and fertilized to produce another crop within 80 days, without the need for new seeding. This strain has been tried in Egypt and the results have been encouraging. We have thus asked for quick-maturing and high-productivity strains, both of which are means of increased vertical production. China, for example, in some areas cultivates three crops of quick-maturing rice annually and in other areas two crops annually. Egypt's climate is convenient for two rice crops annually if the cultivation is started early. For example, in China and Japan, where the climate is cold, rice is now in the form of seedlings, whereas we have not started cultivating yet. This means that if we cultivate 20-25 days earlier and turn to mechanized seeding, we can harvest two rice crops annually. This is why I have personally devoted great attention to Dr Mustafa al-Jabali's experiment at the Scientific Research Academy, although this experiment has been attacked strongly, even inside the Council of Ministers. This experiment will be conducted over nearly 12,000 feddans. We do not force anything on the farmer, who has the absolute freedom to cultivate according to the said program [experiment] or according to prevailing cultivation conditions.

New Strains of Wheat, Barley and Corn

To complete the efforts to close the gap in grain production, agreement has been reached to import highly productive strains of wheat along with the strains of rice that yield two crops annually. It has also been agreed to import new strains of barley and corn. The fundamental goal is to raise the production of grain crops in order to bridge the food gap. We have exchanged letters of agreement in this respect. On the other hand, we are very interested in cooperating with them [not specified] in this sphere and in supplying them with certain strains of cotton, with the approval of his excellency the president.

Efforts Continue With All Countries

As I said at the outset, we cooperate with all friendly countries to complete the efforts to increase our food production. Within this framework, Korea, for example, has an excellent technology for the cultivation of rice seedlings --a technology that is ahead of China's and behind Japan's. Korea is one of the new horizons open to us. We have acquired machinery from the Koreans and they will send us three experts. We are planning to utilize these experts in governorates not already covered by other experiments. The purpose here is to have competition between China, Japan and Korea and to have them all cooperate with us in spreading the use of mechanization and enhancing production. We have also acquired from Korea three other strains that no other country has been able to acquire. The Koreans have responded to us and agreed to supply the three strains out of appreciation

for his excellency the president and on the occasion of his visit. These are highly productive strains that mature quickly. We have also agreed with Korea and China to acquire the technology for fish farming in fresh water. Because the system followed in both countries is the system of "centralized agriculture," it is easy for them to make the decisions and to supply the technology through agreement with the government, contrary to Japan which, as a capitalist society, is willing to supply the technology, provided that we pay for it in cash. We have purchased 230 machines, which are not a grant and for which we have paid by providing the allocations from the ministry. We will use this machinery to cultivate 60,000 feddans with rice seedlings this year.

[Question] Have we not tried to manufacture this machine locally, as we have done with the machinery acquired from China?

[Answer] We did actually contact the war plants and they studied this machine. However, it has become evident that this machine cannot be manufactured locally because it contains 2,000 parts. Moreover, Japan does not engage in and is not inclined toward joint production with anybody. They prefer to sell their own products.

Two Kilograms of (Fuji Hi Kara)

We have been asking the Japanese for the (Fuji Hi Kara) strain of rice for 9 years without any response from them because the Japanese do not readily give away the knowledge they have. We have exerted concerted efforts in this regard and I took advantage of the meeting between the Japanese minister of foreign affairs and Kamal Hasan 'Ali, the deputy prime minister and minister of foreign affairs, and asked the Japanese minister to meet our request in this regard. Two days ago, the Japanese ambassador to Egypt met with me upon his return from Japan and handed me a message to the effect that on the occasion of the president's visit, they agreed to supply us with the desired strain of rice and sent us 2 kilograms of this strain. This strain of rice is neutral photosynthetically, meaning that it needs no certain light requirements. Thus, it can be cultivated in more than one location throughout the year.

Changing Concept of Egyptian Agriculture.

The more comprehensive goal is to modernize Egyptian agriculture. It is unreasonable for the primitive plough, pictures of which are seen on the ancient Egyptian temples, to continue to be used. We must seek to mechanize agriculture because this mechanization serves the goals of cultural, social and economic progress, in addition to confronting the problems of the scarcity and high wages. What we mean here is, of course, suitable and small-scale mechanization. In this respect, the various financing agencies, the banks being the most important, are considered responsible for channeling a part of their investments toward the projects that produce small machinery and to encourage such projects.

Small Holdings Are No Problem

[Question] There is a view which holds that the problem of small holdings may be an obstacle in the face of expanded mechanization and that the inclination toward full mechanization requires reexamination of the ownership systems, either by expanding the system of cooperatives or by turning to the vast areas of recently reclaimed lands.

[Answer] This view is somewhat exaggerated. On our way by train from Tokyo to Osaka, for example, his excellency the president remarked that the distinguishing characteristic in ownership was small holdings consisting of nearly 1.5 feddans. Each farmer had set aside a small area of 20-40 square meters covered with plastic to prepare the seedling trays early. It is obvious that they utilize all the accomplishments of the age of technology.

They are also trying to achieve self-sufficiency in rice in Indonesia. They have excellent strains there, some of which we will acquire. This is in addition to utilizing good kinds of fruit that are easy to cultivate in Egypt. They have fruits that are new to us and we have asked for some of these fruits to try them in Egypt. The Indonesians will host the dean of al-Azhar University's School of Agriculture at their expense. He is a fruit specialist and he will visit them to reach agreement on the kinds of fruit they will supply, including bananas, a kind of fruit called (chico) and other tropical fruits. However, the possibility of benefiting from their technology in our country is almost nonexistent.

Pakistan, for example, imported 2 million tons of wheat in 1978. This year, it has exported 40,000 tons to Iran. Even last year, Pakistan exported nearly 50,000 tons. This year, they have in Pakistan a surplus of nearly 400,000 tons of sugar. They have succeeded in achieving self-sufficiency. The base on which they have relied is the base of correct policies toward the small farmer and the regulated use of water.

The system of holdings is not a problem. The problem is sound planning and proper implementation. This is what we are seeking.

How Will Dialogue of Poor or of Developing Countries or South-South Dialogue Take Place?

[Question] There is an international food crisis that is not confined to certain countries and that has its impact on all countries of the world, both the food exporting and food importing countries. Therefore, your responsibility, along with the ministers of the various countries, is to exert efforts to eliminate and control the crisis, regardless of the existing group and their inclinations, such as the north-south dialogue, the first and Third World countries and other divisions. How do you view the efforts that must be exerted by the international community in this respect?

[Answer] During the meetings of the technical [as published] ministers at the Delhi nonalignment conference, President Mubarak stressed the need for holding this dialogue and for a meeting that would include Egypt, Yugoslavia,

India and the group of nonaligned countries to study agricultural development in these countries, with the meeting to be held in Cairo in November. In Yugoslavia, I raised the issue of the dialogue to which the president had referred. I also discussed the issue in China. The Chinese pointed out that they are not a member of the nonaligned movement and they attend its meetings only as observers. China has expressed interest in the south-south dialogue and its readiness to take part in it. I presented the issue to the colleagues and there has been almost full consensus on the south-south dialogue, with the outcome of this dialogue to then be conveyed to the nonaligned countries. At the same time, the U.S. secretary of agriculture invited me a week before the trip to attend the conference of the food-producing countries that will be held in Washington next June. The secretary also invited me to visit him and to meet with 20 ministers of agriculture from various parts of the world to discuss the world's agricultural development problems. I also discussed with the secretary the concept of the dialogue between the developing countries and the U.S. secretary said: We can embark on a dialogue with you as advanced countries. I discussed this issue in all the countries I visited and they agreed to attend the south-south dialogue to which Egypt will present a special working paper.

This is, of course, a new and big economic entity and it can establish a new and beneficial economic dialogue.

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[Text] The president's Far East tour was a successful beginning to benefit from the experiences of others that can be adopted in order to supply food to every citizen.

The issue has more than one dimension. The most serious of these is perhaps the tendency--emerging after long neglect or with less interest than necessary--to improve the agricultural livestock strains, both plant and livestock strains, and to turn to strains proven to be superior in productivity and quick-maturing, thus providing the opportunity to add a third annual crop.

The second dimension is the modern technology that helps to enhance production and solve labor problems, whether problems of scarcity or of high cost.

In his statements yesterday, Dr Yusuf Wali discussed some of the new trends within this framework. Today, the minister of state for agriculture completes the interview on how to supply food to every citizen or, to put it more precisely, how to supply food to every citizen at an affordable price.

[Question] The question continues to be: What about implementation? In other words, what are the executive steps needed to put the modern trends into practice? What is your view of the transfer of modern technology, whether the transfer of machinery, of strains, of processes or of methods of preparation and cultivation, such as the methods of rice seeding? Then there

is the impact of this transfer on production. What I mean is: Can we say that the interaction of these modern trends with good implementation will result in self-sufficiency? Also, do you think that we might face problems in implementation that will, naturally, affect production and achievement of the goal?

[Answer] I am eager to point out here that the transfer of modern technology to the agricultural sector poses no problem and that implementation is easy. The Egyptian farmer responds to modernization processes as long as he realizes their importance to enhancing production and, consequently, to raising his personal income. For example, the farmers in al-Daqahliyah competed strongly last year in an experiment on seeding rice mechanically. Without exaggeration, the problems arising between the farmers in their efforts to get seedling trays, approximately 100 trays per feddan, had to be settled by the police at times because every farmer wanted to use those seedlings. So the problem lies not in the farmer's belief and faith in the technology but basically in providing the resources to meet the needs of all the governorates. For example, we don't have the machinery to cultivate 60,000 feddans with rice seedlings. If we had such resources, it would actually be possible to cultivate 60,000 feddans. At present, we have nearly 20 Egyptians receiving training in Japan and on their return, each of them will train a number of other people.

Moreover, one of my most important goals is to have machinery operated by agricultural engineers themselves or by graduates of the middle-level agricultural and industrial schools and not be unskilled workers. I will thus achieve two goals: First, eliminate hidden unemployment and turn it into productive labor, in addition to giving the workers rewarding incentives. For example, the engineer used to get an average of 2-4 pounds daily in extra wages added to his salary. This is, naturally, a good social step, which makes it possible to benefit from these capabilities in practical ways. The second step is the machinery itself, after training. This is why I channel most of the funds and investments allocated for mechanization operations to the purchase of machinery. I seek to supply the machinery at the central level so as to reduce the cost to the farmer. If the cost of cultivation, harvesting and threshing is 120-140 pounds per feddan, the use of machinery will save one half this cost. This is in addition to such factors as accuracy, time saving and increased productivity. Last year, for example, the average production of rice per feddan in the mechanized cultivation areas was 4.5 tons compared with 2.4 tons [in conventional cultivation areas]. If we set as a target an increase of 1 ton per feddan within 7 years, this alone would mean an additional million tons of rice, of which 700,000 tons could be exported at a price two or three times the price of wheat.

Integration Is Hope for Self-Sufficiency in Wheat

As for wheat, we will not achieve self-sufficiency due to considerations of relative benefits. But this self-sufficiency can be achieved through integration with other countries in the area. We are presently trying to

cultivate in Sudan the strain of wheat known as 2188, a strain resistant to drought and semidrought conditions. Should we succeed in our experiment, wheat can be cultivated in Sudan for the benefit of both countries. Let us return to implementation:

Insofar as procedures are concerned, we are inclined toward centralism through coordination with the governorates. Agricultural guidance is currently provided on 60,000 feddans. We will later begin borrowing for the establishment of mechanized agriculture cooperatives. We will also advance loans to individuals to start private sector mechanization firms, in addition to the government companies. All this will be done within the framework of the food security loans so as to make mechanization accessible to every farmer not only through a single channel but through all the governmental, public and private sectors and through competition between all these sectors in the interests of the farmer.

I expect a large number of the workers operating the machinery at present to turn into machinery owners because this machinery is a profitable investment. For example, a machine costing 4,000 or 5,000 pounds yields an income that exceeds any salary that its owner can get. Seedling planting operations may then be developed, as Japan has done. For example, (several terraces can be built atop each other for growing seedlings).

[Question] What is the impact of this on achieving self-sufficiency in grains?

[Answer] I expect self-sufficiency in grains, excluding wheat. The fact is that the revenues of some exported crops are used to import wheat. As for the other grains in which we do not have self-sufficiency, such as lentils, we have agreed with Pakistan to try two types of local Pakistani grains, namely, (chic peas and monge peas), which are exactly like lentils and are highly productive.

Dr Yusuf Wali asserts that the talk about importation has led to a misconception regarding our food situation. He says that we import nearly 100,000 tons of meat, 90,000 tons of fish and 70,000-80,000 tons of poultry. The chaotic importation has led to the tendency of some importers to import luxury goods, thus giving the import figures a strong boost. As for imported food needs, excluding the protein group, they are relatively limited and centered on the importation of large quantities of sugar, wheat, corn and, to a degree, lentils.

Lentils Cultivated in Lower Egypt for First Time

[Question] This means that the problem of meeting our food needs can be dealt with in the coming period. This is obvious from Dr Yusuf Wali's view, which he always supports with figures. I asked Dr Wali: But will there always be a shortfall in our wheat production?

[Answer] The situation insofar as wheat is concerned can be dealt with in two ways: First, by using modern technology and, second, by developing some

crops that can be cultivated in Egypt to achieve self-sufficiency and a surplus for export that can be utilized to import wheat. For example, as far as developing lentils production is concerned, this year we started lentils cultivation in lower Egypt for the first time, with 700 feddans planted with this crop in al-Sharqiyah Governorate, where the crop has been successful. This is in addition to the new kinds we will get from Pakistan. Thus, it is estimated that we will achieve self-sufficiency in lentils within 4-5 years.

Have Fruits Disappeared or Have Prices Risen?

Regarding the phenomenon of Egyptian bananas and their absence on the market and the poor-quality bananas found on the market, if they are found, Dr Wali agreed that banana production has declined, saying that the Ministry of Agriculture is currently exerting efforts to improve the production quality through foreign strains and that this improvement will require 2 years. As for the other kinds of fruit, they have improved since the 1950's. Citing an example, the minister said that pears are sold by vendors in the streets whereas in the past Egypt imported pears because there was only one pear farm in the entire country. The same goes for plums. All fruits are available, but the problem is that fruit prices are not compatible with incomes. Only citrus fruit prices are affordable at prevailing incomes.

We Take and Give

[Question] Have we given the Asian countries anything or did we go there only to take?

[Answer] Egypt has certain kinds of crops that are not available in other parts of the world and that are unique to Egypt. The countries we visited have asked for crops from Egypt, especially Pakistan. It has asked Egypt for Jizah cotton types 70, 69, 67, 75 and 77. Pakistan has also asked for clover seeds because Egyptian clover is very successful, two strains of Egyptian corn that are superior to U.S. strains, certain types of cantalopes, 500 grapevine seedlings and 500 doses of semen for the artificial insemination of (Friesian) cows. Pakistan has also asked to send two Pakistani citizens to be trained in Egypt on the activities of agricultural cooperatives and agricultural loans, in addition to having an expert trained on crop structure and another trained on fishing in the high seas. We have acquired from Pakistan samples of all the fruits produced there and wheat and rice seeds. They will also supply us with good strains of buffalo, which produce nearly 10,000 liters of milk per head annually. China has asked Egypt for the 'Afifi and Lotus types of Egyptian cotton and Indonesia has asked for certain types of cotton and fruits.

Ministry of Agriculture Is Not Punitive Agency

[Question] At the conclusion of the interview with Dr Yusuf Wali, minister of state for agriculture and food security, we asked him about the ongoing debate concerning the problem and prices of red meats--prices that no longer reflect economic value.

[Answer] The only way to overcome the red meats problem, in Dr Wali's opinion, is to turn to meat alternatives such as poultry, fish, eggs, plant protein and minced meat mixed with legumes. As for poultry, we have conducted an actual on-the-spot survey, not a survey on the basis of records and licenses, and found that there are 12,000 farms in actual operation. This is why we have issued a card in accordance with which each farm, whether licensed or not, receives 100 tons of corn annually. This amount of fodder is enough to operate every farm for five cycles in order to increase production and have the farms operate at maximum capacity.

The minister of supplies has agreed to import 1.3 million tons of corn to meet the needs of the farms and to sell the corn at a subsidized price.

On the other hand, agreement has been reached between the armed forces and the Ministry of Supplies to set up a hamburger plant. This plant will lead to great savings [resulting from reduced meat imports] because 40 percent of the hamburger will consist of soybeans. As for the fish, we import 90,000 tons [annually] but efforts are being exerted to achieve self-sufficiency in fish. We have purchased two fishing boats from Japan which will operate along our coastline. President Mubarak will inspect these boats in May when he visits Marsa Matruh to inaugurate the barley harvesting season.

Moreover, the high-seas fishing fleet has also resumed its operations after a long interruption. This fleet is currently operating in Mauritanian waters. It has caught in its current trip 700 tons of fish. It has also concluded an agreement with Senegal to fish in Senegalese waters. On the other hand, the Port Fu'ad (fish farm) has resumed its production after suspending its operations in the wake of the war. This farm produces al-Buri type of fish. Exerting concerted efforts in the production of all these alternatives is the practical solution to the unrealistic rise in the prices of red meats.

Final Word

Supplying a loaf of bread, a piece of meat and fruit to every citizen is a great duty and a difficult responsibility and is tantamount to man's self-defense against subservience and man's defense of his life against the spectre of starvation. President Mubarak's tour of the Asian countries and his concern with agricultural development in Egypt and the concerted efforts exerted, as usual, by Dr Wali make us say, as we said at the outset of the interview, that the ramifications of President Mubarak's tour will continue to occupy a major part of our attention, and we will continue to follow up on progress in implementation.