

Agrifood Consulting International

**Shifting Strategy for Agricultural
Development in Viet Nam**

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Past strategy no more adequate

Past performance of Viet Nam agriculture can be summarized into three statements. First, the sector has become increasingly market-oriented over the past decade. This has been the result of *doi moi* policies and particularly of liberalization of trade and marketing and allocation of land use rights to farmers. Second, the incentives released by the new policy and the accompanying investment have produced an impressive growth of agriculture, making of Viet Nam the fastest growing agricultural sector in the world over the past decade. The success in a number of subsectors such as rice, coffee, and fishery is well documented and will not be repeated here. Third, growth in income of the average population has been characterized also by improvement in the conditions of the poor and resulted in a dramatic reduction of poverty.

It is important however to look at the sources of growth of the agricultural sector over the past decade in order to understand whether or not these sources will be adequate in the future. Growth of agriculture in Viet Nam over the past decade was the result of a combination of institutional factors such as new incentives to farmers recognized by *doi moi* as autonomous economic agents and physical factors such as land, labor, capital (mostly in the form of irrigation system), and intermediate inputs such as fertilizer. The role of science and technology in explaining growth over the past decade has been relatively small. According to recent studies, most of the growth could be explained by increasing factors of production, rather than by total factor productivity growth. Total factor productivity growth can be thought as the result of the application of new knowledge and technical change induced by the application of science and technology. Since this total factor productivity growth has been small, it follows that the contribution of science and technology to agricultural growth in Viet Nam, albeit found to be increasing over time, it was still relatively small¹ during the 1990s. Total factor productivity growth could not explain more than 7 percent of growth in agricultural output during the period 1992 to 1999. Therefore, in spite of a remarkable growth during the 1990s, agricultural growth in Viet Nam has been the result of increasing the use of inputs such as labor, land, fertilizers, tractors, and pumps, rather than increasing total factor productivity².

It is unlikely that this strategy will be able to sustain similar growth in the future. There are three main reasons for this. First, the growth of labor force in agriculture is already starting to decline and with very little land available per farmer, the

¹ This small contribution of science and technology to total factor productivity growth should not be necessarily interpreted as a criticism of the research and extension system in Viet Nam. As it will be argued later, the research and extension system in Viet Nam had done an important contribution to agriculture. However, because of the limited resources devoted to these institutions, their aggregate contribution could not be as big as the one represented by physical factors.

² A total factor productivity index TFP is given by $TFP = Q/X$, where Q is a quantity index and X is an input quantity index. Growth in TFP, is given by the growth of the index Q minus the growth of the index X. If TFP growth is small, then almost all of the growth in Q is explained by the growth of X.

attractiveness of farming is going to decline further. Second, new investment in irrigation exhibits decreasing marginal returns as the stock of irrigation capital is already very high and requires increased repair and maintenance rather than new expansion. Third, a large part of the growth of agriculture in Viet Nam over the past decade was due to rice production growth and the growing demand for rice exports resulting from a more liberalized trade system of Viet Nam. However, Viet Nam has already captured a large share of world rice markets so that both domestic and international demand for rice will start to grow at a much lower rate than in the past. Future growth rates of rice production of 5 percent per year will not and should not be a reason for self-congratulatory statements, unless that increase meets a growing demand. The events of the most recent past and the future scenario for world rice demand suggest that rice demand is likely to increase at less than 3 percent per year.

Future growth of agriculture in Viet Nam will have to come not just by adding more labor and capital in the form of irrigation system. It will have to come from an increasing demand (both in Viet Nam and internationally) for high-value agricultural products. That will imply a more diversified agricultural system, where a variety of high-quality products are produced for the market. This will also imply a change from a perspective that is focused on commodities (for example tons of paddy, tons of coffee, tons of cashew, etc.) to a perspective that is focused on products (for example packaged jasmine rice long grain and 100% unbroken, specialty arabica coffee toasted and packaged for European markets, vacuum fried jackfruit chips packaged for the Japanese supermarkets, pesticide residue free fresh vegetables for the Australian market, etc.). This shift of perspective is basically a shift from low-valued bulky commodities to high-valued, high-quality processed products. More generally, it is a shift from a focus on increasing production volumes to increasing production values.

In contrast to the past decade of growth in Viet Nam, the next two decades will require more than just labor, fertilizer, and irrigation. They will require a policy environment, promoting competition and utilizing science and technology applied to agricultural production for meeting the demand of a more sophisticated market.

Competition will be necessary to lower cost of production and thus capture higher market shares and profits in international markets. Science and technology will be necessary to identify new production processes and innovative products that can increase productivity of the agricultural system to a much larger extent than addition of factors such as labor, irrigated land, and fertilizer. Agroindustry development and supporting market infrastructure and institutions will be necessary to capture higher value-added from agricultural production. Science and technology, competition and market supporting infrastructure and institutions, and agroindustry development are the key words of the new strategy for agricultural development.

The case for investment in research and extension

The case for investment in research and extension in Viet Nam is based on several arguments. First, numerous studies conducted in a number of countries worldwide have shown that investments in research and extension have high returns (of the order of 25-40% IRR) for the societies where they have been undertaken. Since these returns benefit society at large and not specific interest groups, there is a tendency for

a market economy to under-invest in this type of activities, and therefore there is a role for state investment.

Second, the contribution of research and extension in Viet Nam has already being considerable relatively to the extremely low volume of investment in these areas. New rice varieties, hybrid maize, true potato seeds, new strains of cassava are just a few examples of the remarkable results that even little investment in research and extension could produce in Viet Nam. However, the investment has been too little to make any major contribution at the aggregate level.

Third, a casual look at other successful agricultural systems in the region (for example China and Thailand) will convince that the commitment of Viet Nam to research and extension has been quite low not only in absolute value but also in relative value (for example Viet Nam spends only about 0.1 percent of agricultural GDP on agricultural research, whereas Thailand spend 1.4 %, that is almost 14 times as much in relative terms). If Viet Nam wants to compete with these successful neighbors, it would be better to follow their behavior in this respect. This is the case not just in theory, but also in the practical experience of farmers and consumers in Viet Nam. It is not unusual to see hybrid rice from China coming to Viet Nam and hybrid maize or new mango varieties coming from Thailand to Viet Nam).

Fourth, the requirements of high-value and high-quality agricultural products by domestic and international markets cannot be met without access to new technologies by farmers and enterprises. Sometimes, these new technologies are embodied in inputs or capital. Other times, they are embodied in management practices or production processes. In both cases farmers and enterprises need to have access to knowledge that they can use to improve their production and marketing process and therefore attain higher income. Currently, in Viet Nam very little of this knowledge is available to its farmers and enterprises. To a large extent, this is the result of little effort and resources committed to the generation and dissemination of technology and market information.

Fifth, the ideas expressed here, of the critical importance of science and technology to modernization and industrialization of Viet Nam agricultural system, are not new or inconsistent with the overall Government strategy expressed in a number of documents over time. However, these ideas are slow to be materialized in actual investments and budget allocation. Even though recent decisions by the government have increased the resources to agricultural research and extension, a lot more needs to be done both in terms of resources allocation and institutional changes. The proposed new Agricultural Sector Program would facilitate bridging the gap between declaration and implementation of priorities.

The case for investment in market supporting infrastructure and institutions

By recognizing the household as an autonomous economic unit and by embarking the economic system towards the market orientation, *doi moi* set in place incentives that, together with public sector investments and a relatively equitable agrarian structure, contributed to a remarkable growth in production and poverty reduction. To a large extent, the economic policy after *doi moi* consisted in progressively reducing

restrictions to the operation of the private sector and introducing competition in domestic and international trade.

Even though some restrictions still remain and there is still a scope for completing the process towards market orientation, the future challenge will increasingly be not liberalization policy but building of institutions and infrastructure supporting the markets. The gradual elimination of restrictions is a necessary condition for the market system to be operating effectively, but it is not sufficient. The benefits of the market system can be fully realized only if supporting infrastructure and institutions are in place.

In contrast to other developing countries, Viet Nam rural economy is largely characterized by the absence of rural wholesale markets for agricultural commodities. Traders procure most of agricultural commodities at the farm gate. Farmers, traders, and agroenterprises have rarely the opportunity to meet each other in market places where they can compare prices, quality, establish contacts. The presence of these market place would facilitate the dissemination of information among stakeholders, and would also facilitate the inspection of quality, and application of sanitary and environmental standards by the authority. For example, an improved organization of livestock markets integrated with slaughterhouses would reduce the contamination of the public sewage system in urban areas and the spread of animal and meat born diseases.

The key point is that, even when market are liberalized, there is no guarantee that they will contribute to higher benefits to society unless supporting institutions are set in place. Information needs to be disseminated, contracts need to be honored, property rights need to be recognized for assets to be converted into productive capital. That is why inspection systems, market information systems, legal systems, land registration, and taxation are important aspects of development. This software of development is as important as the hardware of development represented by roads, equipment, irrigation systems, and factories. The software makes possible for total factor productivity to grow, so that total output can grow more than total inputs. When total factor productivity grows that is partly because of technical change, but partly because of institutional change that makes possible to utilize the same inputs and produce greater output.

The case for the development of small and medium agroenterprises

Agroindustry is the major component of rural industry in Viet Nam representing almost two thirds of its value added; however, the absolute size of agroindustry (and rural industry in general) is still very small. Viet Nam rural industrial structure is characterized by a dichotomy between on one side million of microenterprises and on the other side few large enterprises usually SOE, foreign owned, or joint ventures. The middle part of the distribution made of small and medium enterprises (SME) that employ permanent labor above the family members is largely missing. The development of the agroindustry in Viet Nam is mostly related to the development of this “missing middle”³.

³ See Goletti F, K. Rich, and C. Wheatley, "Lowering credit constraints of small and large enterprises", International Food and Agribusiness Management Review.

Agroindustry micro-enterprises that generate income of less than \$500 per capita and do not add employment beyond the family labor, have limited potential in substantially increasing rural income. On the other hand, SME employ permanent labor above the size of their family members, are flexible to the requirement of the markets in terms of products and contract specifications, and exhibit low cost of production that makes them competitive relatively to the bigger size state owned enterprises (SOE). SME in agroindustry are already generating profits and income growth at the level of 12 percent per year. However, their number is still too small. Less than 3000 such enterprises are registered in Viet Nam. The growth of the sector will be necessary not only to meet the increasing demand for high-value products, but also to put dynamism into the rural economy through backward linkages with agricultural production and forward linkages with sectors not directly linked to the farm economy.

The main constraints to growth of SME are related to access to land and credit. Even though there is not any serious difficulty for microenterprises to get enough land to conduct their operations, as soon as private enterprises grow and require land in excess of their family dwellings, several constraints occur. Either adequately large pieces of land are not available, or if available there is not adequate infrastructure to conduct industrial operations, or restrictions on the use of land for non-agricultural uses are in effect. Existing industrial parks are usually used by very large enterprises, often SOE and foreign companies, are very expensive and not conveniently located for small and medium enterprises, and the process of application not easy.

SME have also an extremely limited access to credit for investment. Moreover, access to credit is not only limited but is mostly short-term. The result is that start-up and expansion investment is almost entirely funded by own savings. Finally, the allocation of credit is biased against private sector and in favor of SOE. In the audited statement of VBARD for 1998 for example, the total short, medium, and long-term credit to state and non-state enterprises, 90 percent was allocated to SOE and 10 percent to non-SOE.

The presence of million of farmers and rural microenterprises with low income and the bias against private sector in credit allocation, partly explains the low level of investment in agriculture. Moreover, the government has carried out most of the investment in agriculture (primarily in the form of irrigation system). Even though agriculture contributed about 24% of GDP, less than 7% of total investment went to agriculture and the bulk of this 7% investment is state-funded. Private sector in agriculture, and more generally in rural areas, invests very little. The potential that could be captured by a more dynamic private sector has not been realized primarily because of constraints in the access to credit, land, export markets, and the lack of supporting institutions and infrastructure.

Proper role of state in agriculture

Viet Nam is now in a situation where the major benefits of *doi moi* have been realized. The recognition of the household as the main economic agent in agricultural production and a major reorientation from central planning to a market-oriented system have taken place. The next steps are to continue along the path already opened

by *doi moi* and to provide the underlying conditions for a modern agricultural system to grow and compete in international markets. That will require major investment in agroindustry, research, extension, market information, institutions, and infrastructure for which the Government will necessitate external aid.

The bulk of the investments envisaged here is related to public goods such as research, extension, market information, and grades and standards. Viet Nam is under-investing in these activities in spite of their essential role to improving agricultural productivity and income. Moreover, the investment in this type of activities is considered one of the proper roles of the government in a market economy. Rather than diverting the state resources to activities that would be best if left to the private sector, the state should divert its resources to those activities that the private sector will not have a major interest in undertaking, even though they may be of high economic value to society.

If Viet Nam agricultural system has to grow, the development of the agroindustrial sector is critical in order to move away from a low-value commodity system to a high-value products system. The development of private agroindustry has the additional advantage of generating employment in rural areas. Agroindustry development is currently constrained by limited access to credit, land, and information. In the past, credit allocations have been biased in favor of SOE; this bias could be now redressed in order to create a level playing field between private and public sector. Access to land for small and medium enterprises could be improved by creating industrial parks in rural areas. Promoting fairs, study tours, trade associations, and initiatives that facilitate contacts and joint ventures between private domestic sector and foreign enterprises could enhance access to information.