ROLE OF CORPORATE ACTIVITIES FOR NEWLY EMERGING AGRO INDUSTRIES

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The general impression among many policy makers, planners and development agencies is that if investors were invited into the irrigated dry zone areas they could easily set up thriving agro-processing industries. The falacies behind this line of thinking are explored in this paper by Mahe Wickremaratne, who gained much practical experience of the problems in these areas as a senior administrator in the 1960's and 70's in the dry zone regions of the country and as Chairman of the Sri Lanka Sugar Corporation in the early 1970's. He maintains that in the Dry Zone for the best use of the natural resources of well drained soils under irrigation, it is necessary to provide for larger holding sizes than the one hectare family farm.

This paper shows that there are far more factors that need to be given attention before successful agro-processing industries could be established in the dry zone, and particularly the Mahaweli areas. He raises the issue whether 20-30 percent of the well drained soils under the Mahaweli and other irrigation schemes should not be blocked into 10-100 acre farms for such development projects. The argument runs that in order to ensure a return on investment an entrepreneur will have to cultivate a minimum extent of land, and if this is not possible, it would not be easy to attract them into these areas. He lists six specific examples from his experience in the early 1980's to illustrate how projects fail to take off. Since this paper was read the Investment Agency of the Mahaweli Authority has taken note of the issues raised.

Sri Lanka is well known as a producer of primary products which are either processed for domestic consumption or exported in semi-finished form for processing and consumption abroad. In either case the industrial technology is relatively unsophisticated, if not primitive. In the case of export crops such as tea, rubber and coconut more sophisticated technology is applied to our semi-finished products abroad so that they finally reach the consumer in those countries in more sophisticated forms or as an ingredient of more sophisticated products. The net result is that the farmer does not get the benefit of the value added by processing of his crops, and the bulk of the profit is made by traders, exporters and processing industries. This applies in different ways to both domestic and export crops. It is generally agreed that it is desirable that the present situation should be changed, and that newly emerging agro industries should be encouraged amongst other things, to ensure that a greater share of the value added to the primary products should remain in the area in which they are grown.

The greatest scope for new agro industries exists in the Dry Zone under irrigation and in the Intermediate Zone under both irrigated and rain fed conditions. It would seem that there is a relationship between factors such as soil types, the availability and cost of water for irrigation, whether the crops are short term, medium term or long term, and the holding sizes of the farm which ultimately affect the types of new agro industries which may emerge in the Dry and Intermediate Zones. Without making generalisations, I would like to illustrate some of these relationship by discussing a few test cases; that is:

1) the cotton project in the Uda Walawe Scheme
2) green chillies and sesame exports from System 'H' of the Mahaweli region
3) The Gherkin project in System 'H' for exports to Australia
4) The Rajarata Food Processing Co. in System 'H' for processing soya products
5) the Oil and Palm industry which Guthrie's proposed in System 'B'
6) The Pelwatte Sugar Co in Monneragala

Before commenting in detail on these cases I would like to suggest they seem to illustrate an unresolved problem in planning the development of transbasin irrigation projects at the national level. This problem, appears to be based on the relationship between soil types available for irrigated agriculture in the Dry Zone, and the holding sizes approved by the government for such soil types.

Basically I would say that we have carried over certain assumptions which were valid for the cultivation of paddy on poorly drained soils in our older colonisation schemes, into the cultivation of well drained soils in our major transbasin diversion schemes, that is the Gal Oya, Walawe and Mahaweli Schemes. In the former, the one to two hectare family farm cultivated with the maximum use of family labour to produce paddy for domestic consumption has been a very valid pattern. It still is, but the three major transbasin diversion schemes all involve main and branch canals which cross over from one valley to another and irrigated the upper slopes of these valleys which consist mainly of well drained soils. These soils are not suited for paddy cultivation since water percolates out of them very fast and they use up twice as much water as they would if they were used for crops which do not like wet feet, as they say. Technically, from the point of view of both Engineering and Agriculture, there is no reason why small farmers should not cultivate these other crops such as chillies, onions, vegetables and cotton. However, it has to be realised that while they may offer the small farmer very high cash returns when compared with paddy, they suffer from at least two grave disadvantages. The first of these is that they are all relatively high risk crops and can be badly affected by too much or too little rain at the wrong time to a greater extent than paddy. The second is that in the absence of assured market prices, which may or may not depend on the availability of modern processing and storage facilities, farmers have frequently been faced with the consequence of a glut

when their crops are good; that is depressed market prices, just when they hope that they would get exceptionally good incomes in return for the risk they took in mastering a new crop. I have myself seen all but the best Grade A tomatoes being destroyed in the fields in Egypt in such a situation in 1981, notwithstanding the existence of a Heinz tomato processing factory in that country. I also remember even Grade A tomatoes being destroyed in the Cameroon high lands in Malaysia in 1982 owing to a glut forming marmarket prices down below the cost of harvesting and transport of the produce to market.

I do think that this problem can be solved merely by setting up of modern and efficient agro industries to process these crops other than paddy. I would like to suggest that in planning development of new lands, in the Dry Zone, the planning authorities must accept the premise that for the best use of the natural resources of well drained soils under irrigation, it is necessary to provide for larger holding sizes than the one hectare family farm and for different types of farming.

These farms could in some cases be middle sized farms ranging from say 10-25 hectares, and in other cases they could be large commercial farms. If you view it from the processing angle investors of large sums of money in sophisticated processing plants will necessarily want to control at least a nucleus estate which will provide them about half the crop required for full utilisation of their processing plant. They can then afford to take the risk of encouraing small farmers to grow the same crops for processing by them under some sort of arrangement which will give the small farmers an assurance of adequate returns.

Cotton

To come to my first example, for many decades we were told that cotton could be grown successfully under irrigation in areas such as Mannar and Hambantota. There is no doubt about the need for substantial quantities of this crop in order to produce clothing suited to our climate. In the late 1960s the RVDB took great pains to encourage farmers to grow cotton on one hectare holdings during the Yala season. They claimed that farmers did obtain profitable crops in some seasons, but I think that the cost of the tremendous array of supporting services that the RVDB had to provide for agriculture extension, credit supplies and marketing made the project a total failure in financial terms, and certainly in terms of national economic consideration. In most Yala seasons the odd showers which always occur in the Dry Zone, but are referred to as "untimely rain fall", ruined the cotton crop. The farmers very sensibly decided to stop growing cotton. Unfortunately they went back to growing paddy on the well drained soils using 14 acre feet of water per acre per season. No one would invest in any ginning plant or other processing facilities for cotton if he had to depend on one hectare small farmers who could not take the risk of more than a couple of crop failures. Therefore I would say that if we want high risk term crops grown on well drained soils under irrigation we got to go in for large size land holdings given to enterpreneurs or companies which can take this kind of risk and organise their cropping patterns and processing facilities so that they can ultimately show a return on investment.

Green Chillies

My second example is the cultivation of green chillies and sesame under irrigation in System 'H' of the Mahaweli Project. Although yields have been affected by too little or too much water in some seasons, the farmers have generally succeeded in making some money out of these crops in most seasons but the uncertainty of the rain during the Yala Season has made the farmers vary the extents under different short term crops unpredictably to such an extent that no one has yet thought of investing in processing or packaging facilities for any of them in this area not even for seasame. This year they may get a bumper crop if the rainfall pattern suits it. Next year they may get virtually no crop, and the farmers with green fingers may have switched to other crops such as vegetables because the weather pattern would suit them better. In these circumstances, therefore, we can have some extent of other crops grown under irrigation in big projects such as the Mahaweli, but we are not very likely to have agro industries developing for the processing of these crops. The farmers are likely to dispose of them in unprocessed form, and if they are exported they will continue to be exported also in unprocessed form or merely cleaned and exported with very little value added.

Gherkins

My third example is the small private sector enterprise known as Green Valley Canneries that set up business in System 'H' to encourage the farmers to grow Gherkins to be pickled, bottled and exported to Australia. I think I must salute the entrepreneurs who set up this project because they risked thier money in order to pionner an agro industry. They did many things right in ensuring that the farmers received agricultural extension advice, credit and the inputs necessary to raise a good crop of gherkins, and the farmers responded well. But one of the problems that they encountered was that the farmers found that they could get better incomes by switching to other crops such as chillies and vegetables. Even ripened gherkins produced in limited quantities for the domestic market gave them a betrer return than the unripe gherkin needed for export to Australia. Therefore there was no assurance of an adequate supply of gherkins for processing. This again reinforces the point that neither the public sector nor the private sector can make a profit out of processing facilities for short term crops grown on well drained soils under irrigation in one hectare small holdings. The farmers first responsibility is to feed his family and he must change each Yala season to the combination of short term crops that will give him the best advantge for that season. It would not be feasible in a democratic framework such as we have in Sri Lanka to force the farmer to grow a particular crop to suit the processing facility. On the other hand in arid countries such as Egypy it is possible for the govern-

ment to insist that the water they give for the summer season should be used only for the cultivation of cotton. Under their climatic and market conditions the risk of untimely rain fall and too wide a fluctuation of cotton prices is minimal.

Soya

My forth example is the Rajarata Food Processing company in System 'H'. This was set up as a Joint Venture of public and private sectors initially in order to process soya beans into a powder which could be used as a substitute for at least 50 percent of the coconut milk we use in curries. I remember their Feasibility Report which says that both the continuing decline in coconut production and the need to increase the protein content in the average diet, made it advisable to substitute soya powder for coconut in preparing curries. Soya is the least risky of the short term crops for cultivation on the well drained soils under irrigation in the Yala, and even under rain fed conditions in the Maha. If their economic assumptions are correct, I believe that this particular agro industry has a bright future and will serve as a model for other soya processing plants which could convert the raw material into a wide range of products needed to increase the protein content in the average diet. However their progress is retarded by their decision to tie up with the Paddy Marketing Board to purchase the crop. They have no direct linkage with the farmer and do not provide any agricultural services or supplies. In return the farmer is under no obligation to grow soya bean and supply it to this processing plant.

Oil Palm

My fifth example, I am sure you will all agree, is how not to engage in corporate activities in order to set up new agro industries in a country such as Sri Lanka. Guthrie & Co who were one of the largest firms engaged in the Oil Palm industry in Malaysia proposed to the government that there should be a 20,000 acre oil palm plantation under irrigation in System 'B' They would put in all the investment required to develop the land and set up the processing facilities, and they would use Sri Lanka labour on the estate and in the factory. They would pay the lease rent for the land and the water rate which Sri Lankan small holders pay. Beyond this they would brook no interference from the Government of Sri Lanka and its people. What they proposed was vitually an enclave which they would obtain on non-commercial (in fact highly subsidized terms) and operate purely to increase their private profits without any consideration for Sri Lanka interests. The government would have to absorb the capital cost of the social infrastructure including the irrigation and road system, as in the case of the one hectare farms. There was naturally a lot of opposition at the political level to this proposal. In addition it was pointed out by the agronomists of the Mahaweli Economic Agency and by the Sri Lanka Association for the Advancement of Science that Oil Palm being a crop which requires a well distributed rain fall (like rubber with which it grows side by side in most of Malaysia and Nakiadeniya in the Galle district) it would not be economic to invest in an irrigation system for it only for the dry season and thereby reduce the extent of land available for other irrigated agriculture in the dry zone. The SLAAS also pointed out that there was insufficient data on irrigated oil palm and also raised the question as to whether the strong winds in the Yala season would affect yields. Thus a Corporate activity which appeared to have the justification of being totally modern and technologically sophisticated in its approach failed to get off the ground because it had no regard for local technical opinion and no social consciousness whatever.

Sugar

A welcome contrast, and my last example, is the Pelwatte Sugar Co. I recollect with some degree of pride that in the early 1970s when rain fed sugar cane was grown in the hill country in and around Passara and Haldumulla the agronomists of the Sri Lanka Sugar Corporation identified the intermediate zone lowland area of the Moneragala district as being suitable for rain fed sugar cane cultivation. TheAgriculture Department set up research trials which confirmed this. Over a million rupees worth of free seed cane was distributed by the Sugar Corporation to any one in the area who wanted to grow sugar cane and produce jaggery when the price was high. Within a few years, there was enough evidence from both the research trials and the sugar cane grown in so many villages to show that it would be an economically viable rain fed crop. I recommended that the government should try to set up joint ventures with foreign collaboration to establish rain fed sugar cane based sugar industries in this region.

This proposal was really pushed after the present government came into power in 1977. The Pelwatte Sugar Co is based on a nucleus estate and on outgrower cultivation on one hectare farms. The land being leased to outgrowers are vested in the Sri Lanka Sugar Corporation which is an investor in the Pelwatte Sugar Co. Thus, this large agro industry, the largest new agro industry in Sri Lanka, has several welcome features—

1) it has made adequate provision to give Sri Lanka farmers, rather than agricultural labourers, pride of place in the cultivation of sugar cane; at the same time

2) it will provide or arrange for the agricultural extension, credit supplies and other facilities the outgrowers will need for efficient commercial production on 1.6 hectares farms

3) it has not taken away scare resources in the way of land and water for which other profitable uses were available;

4) Sri Lanka government equity participation

5) several Sri Lankan Directors on its Board

6) foreign management expertise on the Board

7) a management agreement with Bookers Ltd which should enable it to operate free from the kind of pressures to which state corporations are subject; and

8) it has a nucleus estate which will ensure it of about half the raw material it requires.

To sum up, the nature of Corporate Activities that will be needed to set up new agro-industries in the Dry Zone will depend on a major policy decision that will have to be made by the Government. This is, whether the 20-30 percent of well drained soils that will be irrigable under the Mahaweli and other major schemes should be blocked out into one hectare family farms or into larger farms. In my view they should be blocked out into medium sized farms of say 10-100 hectares, and in a few cases into large farms like those needed for Sugar Industries. The smaller farms of 10-25 hectares may be left to develop their own cropping patterns and processing facilities. In some cases they may need central processing facilities, and it is best that they should have a sufficiently large stake in them to ensure that they provide the processing facility with adequate quantities of the selected crop or crops for processing. It would be healthy if these processing plants can be set up as joint ventures attracting local and foreign capital where necessary to provide the technology and the export markets that may be needed.

The processing plants may have to provide linkages both ways, with export markets as well as with the farmers. They may have to provide the agricultural extension services, credit and inputs that will be needed to enablethe farmers to produce a large volume of crops for processing. The larger agro-industries will almost always involve foreign investment which we should welcome, provided they confirm more or less to the pattern adopted by the Pelwatte Sugar Company.

In return, the large investments that will be needed to set up such agro-industries must of course continue to enjoy the safeguards that are agreed upon at the time they are set up, so as to ensure an adequate return on capital. Certain problems, mainly of protection and duty structures, that have arisen in the Gilbeys and Nestlé agro industries, should be avoided so as to maintain the confidence of future investors.