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Revitalising Agriculture and Agro-based Industries in Malaysia

First of all I wish to thank the Malaysian Society of Plant Physiology, MARDI and the International Association of Plant Physiology, for inviting me here today to address such a distinguished gathering of agricultural experts.

2. Agriculture is the world's oldest and most important industry. Not only does it provide us with food as well as clothing and shelter but it is also a useful contributor to the chemical and medical-based industries as well as to the construction sector.

3. What is interesting is that while the first great civilisations arose around the fertile plains of the Nile as well as the Tigris and Euphrates rivers, these regions did not receive enough rain for crops to grow. It was the invention of irrigation which raised farming to a sophisticated level and helped to release and move people away from the need to produce food for their own consumption. With this freedom they were able to focus on other activities such as crafts, trade and the pursuit of knowledge. Thus began the early civilisations.

4. Today the problems facing Agriculture have taken on a new dimension. It has to address an alarming population growth of approximately 100 million per annum. The world is expected to accommodate 10 billion inhabitants by the year 2050 compared to 6 billion today and these people must be fed and must enjoy a good quality of life. But there is already a disturbing trend in the world today to use food as a bargaining political tool in the international arena, including the use of trade sanctions in order to achieve compliance. The situation is made worse because the recent Grains Crisis has revealed how much the developing countries depend on the developed countries for their food supply. Statistics reveal that in 1993/94 developed countries accounted for 78 percent of the 192 million tons of total grain exports while developing countries accounted for 66 percent of the imports. Already the peoples of certain developing countries which face sanctions are being deprived of food, while exports of subsidised excess grains by the developed countries have undermined into the export markets of developing countries.

5. Malaysia has charted a course into the next millennium which hopefully will bring her into the league of developed nations. Industrialisation programmes have turned the economy

from one of raw material supplier to a nation also involved in the business of manufacturing products, construction and the provision of services such as shipping, insurance and finance.

6. Agriculture in Malaysia faces structural and organisational issues that need to be resolved if the sector is to be re-engineered for growth and development. Current challenges to the industry have to be addressed and translated into innovative strategies and pragmatic policies if the food, fibre and energy needs of the nation is not to be jeopardised. Already the import of food items is among the biggest segment contributing to our current balance of payment deficit. With a rapidly growing and more affluent population, the situation can only get worse before it can get any better.

7. Our agricultural strategy has been embedded in two policy documents namely the New National Agriculture Policy (1992-2010) and The Seventh Malaysia Plan (1996-2000) which was recently launched. The former emphasises a more commercial approach to agriculture in order to enable those involved to earn higher incomes. But after four years this is still not happening and the policy is therefore being revised to also take cognisance of the changing scenario in a rapidly industrialising nation.

8. The Seventh Malaysia Plan which was launched in May, presents clearer strategies for a more commercially attractive approach to agriculture and in it the private sector has been called upon to be an equal and vital player in its implementation. The primary focus of the plan is to improve productivity through a much more effective and efficient use of resources. The private sector has been called upon to initiate, manage and drive large scale production of food and value-added products including horticultural produce. A new renaissance-style paradigm shift has also been advocated to ensure that modern management techniques be introduced to replace the basically peasant style agriculture and small holdings which are no longer capable of meeting a mass-consumption economy. The shortage of labour has to be overcome through reinvestment in machinery and increasing the size of holdings in order to maximise the efficiency of new farming techniques. In any case the children of farmers are now better educated and cannot be expected to labour on small peasant holdings.

9. Our researches have over the years built up a solid bank of knowledge in various aspects of agriculture. Based on this data we hope to innovate and apply so that we can increase yield, hasten maturity, process the harvests to supply our needs and to expand our exports. The Seventh Malaysia Plan is also concerned with our excess of imports over exports. The

agricultural sector must help to reverse this trend and be a source of foreign exchange through the application of new processing technology for added value to our exports. All agricultural produce must be fully utilised. Thus the palm oil industry should not just produce palm oil for export but should produce animal feed and fibres for furnishing and fibre-board. The vitamin contents of palm leaves have to be extracted and marketed as well.

10. Faced with shortage of land and labour Malaysians will have to invest in other countries in order to continue using our expertise in estate management and our newly developed high-yield planting material. We believe that this strategy will also be beneficial to host countries where land is available and labour is cheaper and plentiful. It has always been our belief that helping neighbours to prosper through investments will eventually benefit us. Today there are no more boat people coming to our shores because there are now enough employment and business opportunities in their own country to keep them at home. Indeed repatriation of boat-people has been made possible and acceptable because of this.

11. Malaysian experience in tropical agriculture is considerable. Most of our tree crops are based on non-indigenous plants. Thus rubber is from Brazil while oil palm and cocoa are from West Africa. These trees have done very well in Malaysia, in fact better than they do in their homelands. It is not just that the climate and soil is eminently suitable, but the approach toward exploiting these crops has always been more commercially oriented. Thus while in Brazil rubber was gathered largely from trees growing naturally in the forests, in Malaysia rubber has been grown in large estates with the backing of intensive research in planting methods, high-yield clones, and constant replanting with better clones. The Malaysian rubber tree produces ten times more than the original rubber tree brought to this country via Kew Garden in the UK. The same can be said of oil palm.

12. We are obviously interested in producing these agricultural produce because of the income and wealth that it generates. It is not a business based on sentiments about agricultural traditions alone. And so we tend to maximise earning through every means possible. Thus besides producing latex rubber trees also produce good timber suitable for furniture. After years of reducing the girth of rubber trees while increasing the yield, we are now keen to increase the girth of rubber trees so as to yield more timber. At the same time the rearing of sheep in rubber estates seems to be a good business proposition. Deer raising in palm oil estates can also add to the income from the use of land.

13. Producing agricultural products efficiently is important but equally important is the marketing of these products. Other than rice and vegetable which Malaysia does not produce enough, other products such as cocoa, rubber and palm oil are produced for the world market. And the world market is subject not only to demand and supply equations but also to manipulations by international traders and commodity markets operation.

14. Attempts to stabilise markets through buffer stocks and agreements between producers and consumers have not really worked. More often the producers lose in this game. For decades now commodity producers have been selling more and more of their products in order to buy less and less of the manufactured goods they need. Had Malaysia continued to depend on commodities, it would today be one the poorest developing countries. Where before 100 percent of our exports was made up of rubber and tin, today only 20 percent of our exports is made up of commodities, although to rubber and tin have been added palm oil, cocoa, petroleum and gas. In other words instead of having a per capita income of US\$4000, we would probably have a per capita income of US\$800 or less.

15. Clearly there is a need to look into the marketing of commodities, especially agricultural products. We know for a fact that many developed countries subsidise the farmers heavily and quite often use excess production as gifts to countries which are the markets of the producers in developing countries. The charitable gesture is commendable but it impoverishes the poor countries.

16. Off and on speculators corner the market, bringing down prices to below cost. Then when they have gained control of the market they would raise prices and make a killing. The producers in poor countries can do nothing about it. But rich powerful countries can force open the markets of other countries in order to sell their excess harvests. Indeed rich countries with their technology, capital and large scale production methods are making poor farmers in developing countries even poorer. We now see cultivation of rice and the exotic tropical fruits in certain rich countries which will have a detrimental effect on the poor farmers in poor countries. Unlike their counterparts in rich countries who can apply pressure on their Governments through demonstrations etc., the poor farmers in the poor countries can do nothing about their misfortunes.

17. New sciences have been developing in the field of phytochemistry and others. Suddenly all the plants in the forests seems to acquire new value. Of course we have always known of the medicinal qualities of certain plants. In

Malaysia we have always known about treating certain diseases with extracts from certain plants. But western scientist were quite cynical about the claims made. They were not scientifically evaluated or studied and therefore they were mere old wives tales. Chemical formulas were scientifically synthesised and precise and must therefore be superior to the imprecise concoctions extracted from parts of trees and bushes.

18. But now more and more often we are finding the chemical compounds unsafe and possessed of many side- effects, even dangerous ones. On the other hand the natural extracts seem to be more friendly to the human systems. No doubt in time the findings regarding natural extracts will be debunked. But until then there will be amplified interest in the properties of certain naturally growing plants.

19. If scientific methods can be used to evaluate synthetic chemicals, there is no reason why the same method cannot be used for extracts from plants. A new science that is closely related to agriculture is fast developing. In time we should be seeing large plantations of medicinal plants whose value may far exceed the fruit trees, grain-bearing grasses and other plants which today make up much of our agriculture.

20. Gene banks will be sprouting in many countries and hopefully the people living in the lands where these plants grow naturally will not be once again cheated of their heritage. Their scientists may not have the skills and the means to identify and extract the valuable compounds from the plants growing in their jungles, but hopefully their rights and their share of the discoveries will be respected. Already there have been instances where they have lost their natural heritage as foreign companies pillage their forests and take as their own the medicinally valuable extracts from the tropical plants growing in their jungles. It is hoped that the international community will act to stop this daylight robbery.

21. We should appreciate the work of these scientists and the foreign companies which finance them and we should give them their due. But the people and the countries where the plants are found must also be given their legitimate share. Just because this is an unfair world does not mean we should not try to be fair where we can.

22. Clearly there is still a lot of life in agriculture. It is not a sunset industry. Its potential is tremendous if we only apply all the latest technology and scientific methods in identifying, analysing, developing and marketing of new agriculture and agricultural products. More money should be

made available by Governments and corporations for research and development. The best minds must be applied to agro-research and they must be handsomely rewarded. Somewhere, somehow the advances in science and in particular information technology should be harnessed to make agriculture, the new agriculture, relevant and beneficial to human society and human life.

23. Your conference on plant physiology is very timely. We really do not know enough about the plants around us. We are obviously not tapping the full potential of this resource. Indeed in some countries plants are merely regarded as decorative and at best carbon sinks for the excessive carbon dioxide which they produce. They appear to think that this is the only reason why we should preserve our forests. They wax sentimental about the beauty of the plants and their flowers. Great horticultural shows are held and the minutest physical characters of the plants are painstakingly recorded and avidly studied.

24. But the essential goodness of the plants have largely been ignored.

25. It is time that we change our perception of plants. It is time that we accord plants the respect that is due to them. It is time that you as plant scientists really study every property of every plant. Perhaps we may find the cure for all our diseases and problems from the secretion and the juices which we take as being natural contents and only of nuisance value.

26. I would like to leave you with these rambling by one who is not a plant scientist. I wish you a successful conference.