

Meeting future challenges in agriculture

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Various strategies and programmes were formulated in the past several decades to improve agriculture in Sri Lanka and we should ascertain whether our agriculture has achieved sufficient progress during this period. The fact that other countries in the region such as India, Thailand, China, Japan, Korea and Malaysia have achieved progress can be cited as a good example. We should consider at length the reasons for the setbacks when our agriculture is compared with the above countries.

In the past most of our agricultural plans were based or targeted to increase the extent of a certain crop rather than increase of the productivity and this is high time to think of a productivity increase. So yield or harvest should be calculated not as Acre/Bushel basis but as kg/Rs and this means that always you know your cost incurred to produce one kg of a certain produce and this practice will help both the buyer as well as the producer to decide so called reasonable price of a produce.

'Maha Yaya' programme launched by the Department of Agriculture for the paddy cultivation nearly two years back can be cited as a good example in this regard. In addition, production cost of every major crop should be calculated every year and this will help farmers to know their production cost, the profit to be derived from the sale of their products and the price at which the products should be sold. High priority should be given to this activity and as mentioned earlier when calculating the production cost the amount spent to produce 1Kg of a certain produce should be considered as the most important as number of bushels obtained from an acre or hectare.

The farmer as well as the purchaser can decide the price that should be paid for a commodity and accordingly prior agreement can be reached. The farmers frequently complain that their products do not receive reasonable prices and this method will solve that problem to a certain level.

Agriculture graduates who have been recruited by the Ministry of Agriculture and nominated as monitoring officers can be assigned to this task and if necessary, a separate service should be established under the name of monitoring and evaluation officers' service in view of the national need and they can be entrusted with the above task as one of their responsibilities.

Cultivation of one crop in one area

The concept of one crop for one area introduced by the King of Thailand is a system mostly appropriate to our country also. Actually, this is not a new programme and we have discussed this matter for several years in a different manner and we used to use the word zoning for this method. Although we have discussed for a number of years that specific zones should be identified for each major crop it has not been implemented.

The Mahaveli project has started this zoning system in the previous season and they did it with maize. In this manner we must identify specific zones for all the major crops such as paddy, vegetables and fruits and this will enable to give priority to develop such crops in the respective areas and accordingly, agricultural extension and research programmes can be concentrated more effectively and even those officers get better versatile knowledge on those major crops and this will help to draw up programmes like marketing and value addition to those crops.

This does not mean that priority is not given to other crops but if a high priority is granted to the major crops productivity can be increased within a short period and similarly, since the production is in one area marketing also can be arranged in a systematic way.



Farmers - one of our mainstays

Most of our agricultural products reach the market without any value addition and this is a very sad state and our immediate task should be to have a national programme for value addition to our products.

Value addition to the products

Thailand can be cited as the best place to get experience on this and they do value addition to almost all the agricultural products. They do value addition to even traditional fruits such as Waraka, Jambola and Rose apples (Jambu) preserving high quality and if we can also start similar types of programme to our agricultural products. We can create lot of job opportunities in the rural sector. In another way this will lead to

1. Increased agri businesses in the rural sector
2. Less problems when there is a glut
3. Lot of new job opportunities.

The most significant feature is that the emergence of small and medium scale agriculture based industries within the rural economy and this will create direct and indirect job opportunities. This includes livestock sector also and initially simple and appropriate techniques can be used. The Department of Agriculture should focus on this immediately and it is suggested to have a food technologist from Thailand for one year period to introduce these technologies and this proposal is made not because of any other reason but due to the vast development gained by Thailand on this subject and it is also suggested to send the officers attached to the Department of Agriculture to Thailand for post graduate and short term training in this field in future.

Marketing targeted agricultural extension programmes

Another important task is to change the methodology used for the improvement of agriculture in Sri Lanka. The officers who are engaged in the agricultural extension activities mostly deal with the introduction of crops, control of pest and diseases etc and no marketing targeted extension programmes have been formulated hitherto.

We must take speedy action in this connection and marketing targeted agricultural extension programmes should be introduced to all agricultural extension programmes in future. This will help farmers to learn to cultivate according to market demand and also to work towards the successful implementation of forward agreement system which has already been introduced.

The officers attached to the Ministry of Agriculture and the Department of Agriculture should have a discussion with the main exporters of agricultural produce in Sri Lanka and also with main purchasers in the local market and this can be done prior to the commencement of the two major seasons.

Introduction of new but suitable hybrid varieties and new planting materials are another important activity but should be done very carefully and it is proposed to set up separate divisions in the Department of Agriculture for this purpose. However, a pacified method should be adopted in this regard. This will help to increase our productivity and also enable to introduce varieties suited for value addition proposes etc.

Appropriate new technologies should be introduced to agriculture sector and this should be done very carefully and also to identified areas. For instances.

1. Protected agriculture
 2. Micro irrigation
- systems can be cited as two new technologies introduced to the Uva province and after this introduction early innovators achieved good results and demand for these technologies are growing daily. Similarly post harvest technology should also be available to potential farmers and this will help to reduce post harvest losses and to improve the quality of the produce.

Development of floriculture sector

My personal view is that priority given to develop this sector is not enough and separate research or development institute should be established for this purpose and special programmes should be launched to improve cultivation of flowers in identified areas. Another bright aspect of this programme is youths who show dislike to traditional agriculture can be attracted to this and future potential seems to be tremendous. As mentioned earlier right areas (zones) for growing flowers should be identified and this will lead to environmental friendly beautiful surroundings in the country.

In the first instance, requirements in the local market should be met and then the world market can be targeted. Following chart shows the flower imports to Sri Lanka during first half of this year.

Flowers imported up to July 2003.

Variety	Total Number
Chrysanthemum	4640
Rose	40260
Gypsola	6350
Limonium	3800
Liliyam	2550
Peacock	500
Tulip	50

Minister of Agriculture has already taken steps to curtail or ban imports and this will lead to rapid expansion of the sector and when a lot of foreign aid is in the pipeline if we can use it in more rational way large number of employment can be generated.

Particularly, a part of Nuwara Eliya district in the Central Province and areas like Bandarawela, Haputale, Diyatalawa and Welimada in the Uva province can be identified as suitable zones for this purpose. Recent records

show that potato yields are getting lower and lower and my personal feeling is that especially Badulla district is not very suitable to grow potatoes. Why I mention that is because once in few years when you have a good climate you get a reasonable yield but still this yield cannot be compared with even our neighbouring India.

If the potato cultivators need to earn a profit one Kilogram should be sold more than Rs. 30 and the production cost in last Maha season was around of Rs. 24.75/kg. During the past few months the consumers had to pay more than Rs. 60/kg and considering this fact consumers gain no benefit from the potato cultivation. Although this may be a good price for the cultivators it cannot be maintained continuously.

Gradual introduction of cultivation of flowers under the green houses to these areas instead of potato cultivation may be a one new strategy. Again above statement can be very controversial but considering the efforts taken by both the research as well as extension staff during last few years to increase yields of potato we have to accept the bitter truth.

Strengthening organizations

Number of years have passed since the establishment of Farmer Organizations and expected objectives or targets have not achieved. Farmer organizations should be formed in respective areas according to cropwise basis (zoning) as mentioned earlier and action should be taken to improve the capacity building aspects of the members and this will help them to run independently in future.

This is a long process but it is very important and ultimately farmers will gain knowledge to be engaged in agriculture more competitively. Although the farmers are wise when taking decisions, they always think that the officers are wiser than them and this is the most backward thinking they have and through capacity building these misconceptions can be removed and this will then enable them to take right decisions and also to run their organization more effectively.

Pilot projects

Number of pilot projects has implemented in the agricultural sector since independence in Sri Lanka and although these pilot projects showed encouraging results in the implementing stage, most of the projects failed when tried in large scale implementation. The major factor for the successful completion of a pilot project is that the officers who are in charge of the project as well as the relevant public officers in the particular area work with special interest in the pilot project and everybody's concentration is centred on one point. But, when we try to implement it in large scale same results not achieved and we have experienced this in many instances and this is the high time to think about a different strategy.

In conclusion, I wish to mention a few major challenges that may be encountered by us in future.

It is expected that the population in Asia will increase by 03 to 4.5 billion within next 30 years and present production should be increased by 45% to meet the demand for food by the increasing population. It is an increase from 650 million tons to 910 million tons in the production of present food quantity. In order to meet the increasing demand for food the following measures should be taken.

To increase productivity of food containing fibre, and animal food products.

To use organic manures and biological methods instead of inorganic, chemicals and fertilizers.

To manage integrated soil, water and soil fertility To increase nutritional needs from animal products.

To increase fish products and maintain sustainability.

To develop our products to world market standard through their competitiveness.