

Siri Munasinghe <sirimuna39@gmail.com>

To:Chandre dharma-wardana

Cc:B.F.A. Basnayake,Prof. Meththika Vithanage,Vijaya Kumar,Nimal Chandrasena,Chandra Dissanayake

Sat., Dec. 18 at 7:15 a.m.

Have we enough knowledge to set up a cheap Pora producing factory for Paddy only, Have we the enough materials Nitrogon, use of Murate and phosphate deposits. How much 100 kg cost and how much 100 would cultivate the present set up. next step, next step etc later,

Vijaya Kumar <vkumar155@yahoo.co.uk>

To:Chandre dharma-wardana,Siri Munasinghe

Cc:B.F.A. Basnayake,Prof. Meththika Vithanage,Nimal Chandrasena,Chandra Dissanayake,Buddhi Marambe

Sat., Dec. 18 at 4:17 p.m.

Siri, you have asked a very relevant question. the most important word is cheap. Farmers are on subsistence incomes and will not purchase new technology products if it is expensive unless they are assured of a good profit. Multinational companies spend hundreds of million dollars to develop a product and are able to offer it to the farmer as a competitive price because of economies of scale and subsidies from government and the assurance of results they can provide the farmer. We scientists in Sri Lanka are provided with very little money on research, largely because politicians and policy makers like some who have contributed to this post have not made an effort to provide sufficient funds for research (Israel close to 5% of GDP, developing countries 2-3%, most Asian countries 0.7-1%, Sri Lanka 0.14%), but still expect scientists to come up with research and products to solve national problems.

I must disclose that I have a business interest before proceeding any further and it is based on our experience that I write this. A colleague in Agriculture and I have a company which has for about six years been manufacturing a bait for IPM control of fruit flies and a Kohomba based insecticide, both of which have undergone extensive testing largely because of the Agriculture Department connection. I must also add however that we are still not able to even pay for our expenses and have not made any profits at all.

[CDW: IPM here means, I think Integrated Pest Management]

Our experience has been that due to poor funding Sri Lankan scientists try to manufacture products solely on the basis of laboratory experiments, without proper development of the product which requires a huge amount of funding. Furthermore because of high costs, they have to cut down on marketing expenses. Routinely American companies making a product allocate 30% for production cost and 70% for marketing. None of the products made by local scientists are advertised and all have the potential to fail in marketing as organizing staff for distribution is difficult. That is why they wish that government or a company to take over the marketing. Sri Lankan companies are not usually interested in local products unless you show them that it can be successfully marketed as we found when we tried to get them to manufacture our product. We

are now negotiating with Hayleys to market our product. Government support is sometimes available, e.g. Ven. Rattana's compost and Champika's petrol from polythene or through making use of facilities in government organizations or through political support either directly or through influential businessmen, although businessmen are more interested in taking over the technology, not to contribute to the research.

[CDW: Champika's "petrol" has been repeatedly questioned by scientists. Dr. Pethiyagoda had written many articles to the Island on it.]

Sometimes an innovative discovery can be made in countries like Sri Lanka, particularly in the pharmaceutical field where small molecules with confirmed activity and no toxicity can be sold at millions of dollars (In the US, hundreds of millions of dollars) which are then developed into marketable products by big companies.

However, our scientist do not have the funding to take a product to that stage and in case of agro products, there is no interest in our products at all. No banks will lend to start-ups by Sri Lankan scientists hoping to put a product into the market. Even the manufacturers of the highly popular product Samahan had to become a CIC company before banks were prepared to fund them. We too found it impossible to get funding. Banks are unwilling to risk their capitals on small players like us.

While it is easy for foreign products to be registered by the authorities as they have all the documentation provided by the principals, Sri Lankan products face many hurdles. We for example are unable to get the toxicology report done on our Kohomba product as the testing is not available locally and costs over SL Rs 3 million in India and so we have only provisional registration.

[CDW- So the MRI does not have toxicology capabilities. It is probably possible for the Vet Department of the University to do so as they have lab animals (mice, rabbit) and do carry out such tests.]

There has been one success story so far, the Nano phosphate produced by SLINTEC, but they not only had funding from private companies but were also successful in using their marketing skills to divert large amount of Ministry of Science funds, probably more than all other institutions put together have received as research funds from the government over the last twenty years. Their product was sold to an Indian company for 3 million dollars, but since we have not had any further news, one wonders whether it was bought to prevent the technology being used by other companies.

Another good example was the Bti identified from Sri Lanka by Radhika Samarasekera of the ITI from Sri Lankan sources which was shown to be useful to control the Dengue mosquito, when I was Chairman of ITI. Director ITI, Dr Mubarak with my support was able to convince a local industrialist to invest in a factory (the first bio-product factory in Sri Lanka).

[CDW: For those readers who may not know much about this, the leading paragraph of the news item published in 2009 ran as follows "The Industrial Technology Institute of Sri Lanka (ITI) is quite confident that their latest research on the bacterial toxin scientifically known `Bacillus Thuringiensis Israelensis (BTI) would help to destroy mosquito larvae and thus eliminate all mosquito borne diseases, dengue, filaria and malaria, in the near future.]

In an interview with the Sunday Observer, Senior Research Officer of ITI, Dr. Radhika Samarasekera commended the Government's effort to eliminate dengue epidemic and added that three State sector institutions, the National Science Foundation, the National Research Council and the ITI have so far spent over Rs. 10 million towards the research programs. However, she called on the public to be responsible in keeping their environment clean and tidy and also pointed out that the Government cannot be blamed for creating mosquito breeding grounds. <http://archives.sundayobserver.lk/2009/08/02/spe05.asp>]

While we had to struggle to get registration, Bti from abroad, some promoted by politically influential sportsmen, got instant approval and government support. When permission was finally given to market it, a condition was that it could be sold only to the Ministry of Health, which meant sales were restricted and palms probably had to be oiled. The poor businessman having paid ITI for the technology and invested millions on his factory burnt his fingers in trying to develop a new technology in Sri Lanka, part of the reason I surmised from a hint by the then Minister of Health had ethnic undertones.

So, Siri, you must realise that you should not blame local scientists for being unable to provide products which are not fully tested as they do not been provided the research funds to produce a fully developed marketable product. They cannot also provide cheap products because the small market makes costs high unless they are subsidized by government. You must also excuse the white lies they sometimes produce because they are either desperate to gain fame through their product or to recover money they have invested. Don't be too harsh on them as they are making a genuine effort to solve a national problem. But for the reasons mentioned above, whether the product will be successful or whether it will keep the farmer happy comes with a very big question mark.

You could of course criticize the politicians and policy planners who having allocated very little funds for research, make impromptu decisions which put our scientists into embarrassing positions and our farmers in trouble.

Regards

Vijaya Kumar