



Prof. Tissa Vitarana

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Social responsibility, an endangered trait

By Manjari Peiris

"Social responsibility within present society is on the decline; among scientists too, it is fast diminishing. A feature that was among the many facets of the life of Bernard Soyza was his high degree of Social Responsibility."

Minister of Science and Technology, Professor Tissa Vitarana, delivering the Bernard Soyza Memorial Oration, on Social Responsibility of Scientists, made this remark at the ceremony held at the Sri Lanka Association for the Advancement of Science, in Colombo.

Prof. Vitarana pointed out the fact that, lack of awareness on science, within the population, had extended policymakers in leading an adverse impact on policy formulation and funding for development of Science and Technology, both of which were important to Bernard Soyza.

Scientists are also a part of soci-

The Minister raised the question as to whether scientists could continue with their routine roles and ignore the problems of poverty among many of our people, like malnutrition, inadequate housing, lack of clean water and proper sanitation, unemployment and underemployment, poor health, effects of energy crisis and global warming, which are threatening the entire world?

"In the drama of transforming our society, scientists and technologists have a sense of social responsibility. As scientists, we cannot sit back blaming politicians and corrupt government officials; it is only through the proper application of Science and Technology, backed by Research and Development, that a way out can be found."

He stressed the fact that, it was the scientists who should help to transform Sri Lanka's economy from backward primary producer to become an industrialised country, by adding value to our natural and Agricultural resources.

Prof. Vitarana pointed out that, with the right of private practice, the deterioration of the health service had hastened. "Though there were many who gave their fullest attention to poor patients in government hospitals, during normal working hours, there are others who neglect their responsibilities to varying extents. More attention is paid to those patients who pay something to the doctor privately.

The Cuban example

He stated that, with the expansion of private hospitals and laboratories, there had been an increasing tendency to actively run down government institutions, so that, the former gained. "Can we expect a doctor who makes more money, when the number of patients increases, to work for an effective preventive health

service, which would reduce the number of patients?" he asked.
"In the capitalist society of today, we

cannot object having separate government and private health services. But the doctor and the other staff should be in one or the other, not in both." Prof. Vitarana stated that government doctors should be full time and properly remunerated and all their needs, homes, vehicles etc. should be met. There should be an efficient free Health service without shortage of medicines and tests. Adequate State expenditure to meet with Health is required. "If a poor island like, Cuba can provide this why can't we?"

As such, "Climate of Compulsion" on the part of prescribing doctor, is an abandonment of his Social Responsibility.

On the other hand, many scientists in the Agricultural sector, still strongly advocate the prevailing green revolution technology and the use of seed and chemicals produced by multinational corporations. Therefore, there is reluctance to promote natural and organic farming. The Alternative Farming Thematic Committee of the National Science Foundation has collected evidence, which clearly indicates that, within a year or two, the yields from organic farming would catch up with those from the green revolution technology. Therefore, it is time, that scientists in the Agricultural sector, discharge their Social Responsibility to the farmers, by actively promoting organic and natural

Appalling emphasis on research

The Treasury always gives low priority to science and Technology and releases money late and in driblets. This is a hindrance to using funds properly. We have 4,600 research scientists, but have only 20% academics engaged in Research. research degrees constitute less than 2.5% of the total postgraduate output by all Sri Lankan universities. The non-university research institutions have almost 50% of the Research facilities in Sri Lanka, but hardly are they tapped for postgraduate Research training. Among the research institutions, 28% are dedicated to agriculture, 22% to social sciences and humanities, 18% to applied sciences and only 11% are directed towards Industry oriented research.

The number of researchers per million inhabitants in Sri Lanka is only 237, which is well below the Developed

country average of 3273.

The Social Responsibility of scientists can be best discharged by eliminating poverty, which is the main reason for causing many social disadvantages within the country.

If Cuba, which is a small island with a population of 11 million, confronted by an embargo, could industrialise their country, by using bio-technology and generate income exceeding US\$ 400 million in 2008, why cannot Sri Lanka do the same?

Organic fertiliser makes a comeback

By Rathindra Kuruwita

Artificial pesticides and fertilisers have become common in Sri Lankan agriculture in the last few decades. Although artificial stimulants have increased the Sri Lankan paddy harvest by a significant amount in the last 50 years, some claim that overuse of inorganic stimulants have increased the salinity of the soil.

"In 1950 we imported 60% of our annual rice needs from abroad, back then there were only six million people in our country. But now, there are 20 million and we hardly import rice," said Director of Bathalegoda Rice Research Institute, Dr. Nimal Dissanayake. "So we have to look at both sides, yes we need to spend a lot to import artificial fertiliser and in some cases it has led to the pollution of our water supply but on the other hand it has boosted our harvest,' he said.

Using fertiliser to combat drought and salinity

According to Dissanayake, the best way to combat the increase of soil salinity and drought in paddy cultivation is the use of nitrogen fertiliser. He added that studies have proven that nitrogen fertiliser can help plants to develop tolerance to increased drought and salinity. "Research done around the world has shown that there is a relationship between nitrogen fertiliser and tolerance to water stress. This relationship can be specially seen in small plants, and we believe that this include paddy," he said.

He added that our ancestors were aware of this phenomena and our traditional organic fertiliser had a high nitrogen concentration. He added that in areas where paddy was originally harvested like Anuradhapura and Hambanthota has dry weather.

"Farmers in these areas must have faced this problem even back then and traditional organic fertilisers like compost or cow dung have a high nitrogen concentrate. And they also retain moisture in the soil and they release nutrient elements much slower into the soil than artificial fertiliser," he said. "Then there are other methods like covering the cultivation area with hay and raising bed like structures. The first method is used to retain the moisture in the soil while the other is used to combat soil salinity," he added.

to combat soil salinity," he ac Matthamgoda kramaya

Matthamgoda kramaya is a method used in the southern province by farmers who are struggling with soil salinity. The farmers use the debris left over from the previous harvest to raise the ground, this will help retain moisture in the soil and reduce soil salinity.

"The farmers also build a series of canals across the land and the cultivated area sits like islands. When there is rain the salt is washed into these canals and are taken away," said Hemantha Abeywardena, Organic Agriculture Facilitator of Practical Action. "The only drawback of this system is that only 60% of the land can be used for cultivation, the other 40% is used for canals. But in some areas this is the only way that is successful against

soil salinity, especially in the Koggala area.

Abeywardena added that in the recent years, farmers are also using traditional organic pesticides, this practice is specially adopted by farmers who cultivate traditional varieties. These methods range from planting daspethiya plants, whose strong scent drives away insects away to using a mixture of natural herb

"Many use the extracts of kohomba seeds and mix it with soap and spray them on the paddy. Both kohomba and soap are anti insect repellants, and this has proven very effective and cheap,' he

said.
(Under the aegis of CSE media schol-

Facebook Scams

Protect your profile

SCI - TECH

Compiled by

Tharaka Gamage

By JR Raphael, PC

Facebook and other social networks can be downright unfriendly when it comes to scam attempts. Here's how to protect yourself and your Facebook friends.

Beny Rubinstein knows computer security. An employee of a Seattle-area tech giant with 20 years of IT experience under his belt, Rubinstein has seen a side of the industry that most people will never know. He holds a degree in computer engineering, and — oh yeah — he just got scammed out of \$1,100 on Facebook.

Rubinstein's experience isn't entirely uncommon. (We'll get to the specifics in a moment.) What's striking about his story, though, is that it demonstrates how easily anyone — even a highly trained expert in computer security — can be ensnared by a seemingly simple social network scam. And all kinds of these scams are on the loose.

More than 20,000 pieces of malware attacked social networks in 2008 alone, estimates the online-security firm Kaspersky Lab. That's no surprise, either: While e-mail is still the most spam-filled medium, researchers suspect that social network cybercrime is

growing at a far faster

"People are used to receiving spam malicious messages in their email, but it is much less common on Facebook," says Graham Cluley, a senior technology consul-

tant with Sophos, which makes antivirus and anti-spam software. "They are lulled into a false sense of security and act unsafely as a result."

You can avoid becoming one of the many who make that mistake. We've dug up the dirt on five scams currently posing a threat on Facebook. We turned to analysts who study them as well as to users who have fallen for them, all to help spread the word about how these things work and how you can best dodge them. (Facebook representatives did not respond to our request for comment)

Knowledge is the greatest weapon against becoming a victim. Read on, and arm yourself well.

Scam number one: The Nigerian 419

The scam: It may sound like a hip new emo band (or a somewhat old email scam), but the Nigerian 419 will do more than just offend your ears — it'll also empty your wallet. The moniker refers to a scam dating back decades



that has recently entered the social network scene.

Back to Rubinstein. A couple of months ago, Rubinstein received some alarming Facebook messages from a friend and fellow tech professional.

"[He said] he was in the U.K. and was robbed, and needed \$600 to fly back to Seattle," Rubinstein recalls.

The messages came both in Face-book-based IMs and in e-mail. They included details such as family members' names, making the notes appear all the more authentic. It wasn't until two hours and \$1,100 later that Rubinstein realized what had happened: Someone had hijacked his buddy's account, contacted his friends and -- at their expense

-- made off like a bandit.

"Scammers figured out that even though social networks don't have direct access to money, they have access to information that gives you a good shot at getting someone else's money," says Vicente Silveira, a product management director at VeriSign and a friend of Rubinstein's.

The protection: Before you send cash to a pal who seems to be in trouble, try to contact him or her outside of the social network, either by phone or by external e-mail. Not feasible? Ask an extremely personal question that a hacker couldn't possibly figure out from information within the profile. We'll leave the specifics up to you.

