

The Pragmatic Research for the National Development and Prosperity for Sri Lanka

transcribed plenary speech of

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The problem with research is that it doesn't go into action. It is not unique to Sri Lanka, it is present in everywhere. The research can be categorized into two, as curiosity driven research and need based research. The research that results in action is called as pragmatic research. This speech is focused on it and how to achieve it. Further, how world and Sri Lanka look at development and prosperity.

Adoption of the Sustainable development goals by UN General Assembly (2012) addressed 17 themes on what this world should be and the future we want. The last theme was the means of implementation. It has a lot to do with science. It gives huge challenges to scientists to find the answers to the needs of the human society and environment. Sri Lanka needs to focus on these areas because it's a member of the UN, and will need to adopt these goals.

STI – Science, Technology and Innovation

The investment of the research is very poor in Sri Lanka. It has to improve. However, we have challenges; thus, we should collectively address it. Because of this low level of investment on research, in 2010, Sri Lanka came up with a strategy; to focus on key areas of research.

In Asian countries, development is based on knowledge. Thus, Sri Lanka also has to keep up on it. This strategy asked about Rapid Socio- Economic development from scientists. We have to focus on advanced technology, direct the research towards what we need and techno Entrepreneurship to achieve this. With this we have to build up the capacity for the research system in parallel. And also we have to address sustainability principles with scientifically literate the society. Now, we are very much alien with UN sustainability force, thus it's very easy for Sri Lanka to move ahead.

Economic, Social Justice and Environmental quality are the pillars of directing research towards development and prosperity and we have to have a balance to achieve sustainable development.

Pragmatic Research means Science into action; Science into Rupees. It means have to go beyond the research, more than publication.

For example, developing a process or product or up scaling. That is what we need now. The researcher alone cannot do it, we have to have the right mix of people who will enable this to happen. Then we have to go for large scale production with the help of engineers. Next, commercialization has to take place, and then only the innovation would take place. The innovation is what is coming out of research that has been commercialized. Commercialization is very critical for the innovation. For that we need the direction, guidance and action that benefit the environment and people. This is how we can contribute to Socio Economic Development.

Science and Action

There is a long lag period between the scientist saying to work on and the action being taken place. Eg: Climate change.

The gap between science and action is huge, it has to be reduced. Have to have some idea.

When it comes to economic contribution to socioeconomic development, the Human Genome Project is the great example for the Socio –Economic pay back for the investment in research.

Work on the sustainability pillars is the means of achieving pragmatic solutions while building our capacity of research. Scientists usually do not bother about what nation needs. STI efforts to focus on National Development. Fifteen theme areas have been identified for research. Actually we need to do our researches on these.

So that, we came up with the following model since we need much more focus effort. A necessity for pragmatic research.

That is, idea → R and D → technology up scaling industrial and commercial production → market penetration. We have to be conscious about the entire chain.

End users have to drive the research need, but all the stake holders are a part and partial of the research process. In parallel we have to ensure our skills as our capacity is low.

There are challenges to move to pragmatic result research, thus we have to address at an individual level, institutional level and National level. Then we have to make connection to ensure research leads to end results. Key consideration is that now, research system is very scattered, coordination is important. COSTI, Coordinating

framework supports this. There were challenges like poor investment in researches, but NSF supports research in different ways such as grants, equipment and repairs, supporting publication, application for patents, awards etc. All stakeholders in the innovation system must work in concert that what COSTI does. A national R & D and one ecosystem to enable “Pragmatic Research for national development and prosperity” can be achieved with this connection.