

## **Technology – “ What Role must Asia Play?”**

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At the outset, allow me to express my gratitude to Hitachi for this opportunity to participate in this Initiative. This is a very noble programme with a very definite objective that I hope is achieved.

It is very difficult to come in and talk at this stage at the tail end – what has been said has been said; all the thoughts to be expressed have been expressed. However, what I will attempt to do is look at technology from a macro perspective: to look into the relationships of nations and the role of technology in this relationship.

Asia today is faced with many challenges arising from the recent financial and monetary crisis. Asia remains unstable with a proliferation of diverse cultures, religion, languages and systems of government.

There is no monolithic Asia. In the face of this, I take the stand that Science and Technology is the key to our recovery. It can transcend culture, religion and systems of government. In a span of just a decade, the impact of Science and Technology on individual lives and communities and nations has left a profound consequence. Classical economics have long recognised that the factors of production are labour, capital and materials. Now knowledge, intellectual capital, education and technology are all intrinsic factors and part of the economic system. Wealth, a nation's economic power, is derived from the generation and exploitation of knowledge.

Let me clarify at this point that when we talk of workers in a knowledge society or economy we do not just refer to telecommunications and information technology personnel but also to researchers, teachers, economists and policy analysts. Let me clarify further that when we talk of Science and technology we do not refer to only information communications

technology but we also refer to the Sciences, Biotechnology, material engineering and other forms of technology.

We have been talking about globalisation - we are in an era of globalisation in terms of a borderless society, access to markets and free-flow of trade. We are led to believe that it is a wonderful world. To us, however, this means competition – survival of the fittest – cutting edge in technologies, innovation. In addition, it means control of markets and market share. Are we as Asians, with our mentality, prepared for all this? Is this our mindset? It was only a few years ago when Professor Krugman pointed to the fragility of the economic growth of East Asia. He noted that it was input-driven, investment-led growth unlike developed economies, which were derived from technological progress and factor efficiency. Have we learnt from this lesson? True we have invested in education and increased our mass of scientists and introduced innovation, yet just as when we feel we are finally keeping up, 'Europe and Euro-incorporated' (or if you prefer, Euro) dot.coms, USA incorporated or US dot.coms, come around and demolish us.

I ask you – can any single Asian nation compete in this game, where the rules are continually changing? There has been mention of an economic union for Asia, similar to that of Europe and certainly similar to that of the USA, as a big mass (not only land mass) but a critical pool of scientists. What we need to consider is a technology union. This must be forged within Asia with a singularity of purpose, a union of research and development, post-production and marketing. Let us look at this from the perspective of information communications technology (ICT). Japan is way ahead in technological expertise, but ICT does not only mean hardware. ICT in all its components refers also to software and the application of the software. Perhaps where one country is deficient is in English, the language of globalisation. This is precisely where other countries within the Asian region come in – India, Philippines and Thailand. These are countries where there is a larger English-speaking population, but more importantly a population that can *think in English*. It is easy to learn a language but it is harder to think in a language you have learnt... One example of this is the cartoonists from the United States, Hannah-Barbera who were sent to the Philippines to do their animated cartoons. They went there not so much due to the facility in English but because the people there can *think* in English. The people can follow the humour of the story, so their actions are not only mechanical but they can also

anticipate and modify because they can also think in a foreign language. That is the strength of some of the countries within this area.

As far as ICT is concerned, the main focus is in terms of research and development, manufacturing, software development and applications. Most of you may have seen the magazine *Business Week* that was delivered to our rooms. Its reports focused on the various technologies within Asia that the different nations are concentrating on. What struck me here was the reporting was in terms of individual nations with individual thrusts, each nation trying to develop its own technology and each attempting to achieve a critical pool of scientists within their own country. This is why, in contrast, I find it gratifying to see our Young Leaders here today, working together, discussing together and searching for a vision for strategies for *Asia*. Your elders are looking for visions and strategies not for *Asia*, but for their individual countries. That is the mindset that I hope can be changed - for *Asia* to be able to survive in this global field. No matter how we want it, the world has been divided. Europe, Africa, USA and *Asia*. Unless you have a united *Asia* working with enough bargaining power on the global market, there is no way that a single Asian nation can achieve the markets and advances of other individual countries.

We know that there are obstacles. In Japan, for instance, it may mean that the immigration laws may have to be relaxed. For the Philippines, we must have structural changes in education and changes in land ownership. But these are decisions we have to make. There are strategies that can be formulated so we have to task our Young Leaders with this to achieve these objectives.

Japan has taken the initiative with a comprehensive, cooperative package to address the international digital divide. For this, they are offering and have set aside US\$15 billion. It is a good start, a good direction and something all of us should build on. I have other proposals but in the interests of time, there is only one other comment I wish to make; in response to comments that have been made before me and also in reaction to what our politicians keep telling the department of Science and Technology and researchers— ‘why undergo your own research, why not buy technology’? Our answer to that is simple. The technologies that you will be able to purchase from other institutions are obsolete technologies. We are in competition. No country will offer a “leading edge technology”. They will give you obsolete technology. That is why it is incumbent that we as a group or

as individual nations develop our own technologies by engaging in research and development.

Those are a few thoughts for our audience and Young Leaders to ponder, consolidate and concretize. We wish our Young Leaders to be ambitious and reflect on all of this in five to ten years when you will be in positions of power and influence. In conclusion, we would like all of you to think in terms of what you have achieved from this conference and whether you as an individual and a group can make a difference.

**Blurbs:**

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