

The use of satellite based Technology for developing countries has been discussed in various papers and forums. However there are barriers that hinder the use of this technology key among them is technology development.

In My presentation I will show that there is motivation for developing national technical capability in Africa and Kenya in particular.

In Kenya there can be ideas of collaboration at technical institutions and universities. In the University of Nairobi for example they have the department of geoinformatics and space engineering.

I will also point out the possible uses of nano-satellite s such as monitoring changes in the environment, supporting the environmental early warning function (looking into emerging trends and threats at localised scales), support ground data collection (correlate e.g. with diminishing sizes of lakes, forests, expansion of urban areas into agricultural space such as in my home town of Limuru), and enhancing research work at university level in space science.

At technical pseudo-university colleges, increasing capacity and skills in the operation, maintenance and data analysis.

In Africa a nano-satellite (low-cost satellite, short lifespan satellite) is very ideal for the study of vegetation patterns to water bodies and soil by using Near-IR camera and provide valuable information regarding flood, drought and disaster management. Data obtained can be used by Met offices, but direct by NGOs (Red Cross and affiliates - see Data Exchange Platform for the Horn of Africa (DEPHA-www.depha.org) or Red Cross affiliates).

There are efforts in various places for use of nanosatellites in the UN to use in sub-saharan Africa The nano-satellite technology will indirectly (or even directly) advance environmental GIS related studies in Africa. This will support UNEP's efforts of keeping the environment under review (Global Environment Outlook GEO and Africa Environment Outlook (AEO) series).

But while doing so I will discuss whether nano-technology meets the goals of technical capacity building in Kenya. Is the technology

- (a) highly advanced as in developed countries
- (b) or what some people call the “appropriate” technology
- (c) or the “intermediate “ as expounded in the “ Small is beautiful” concept by E. Schumacher.

Due to Developing countries having urban and rural areas, the idea will be to use technology that will lessen innovation but use the technology creatively to find accessible ways to solve problems.

Technology has to be achievable given the financial and educational capabilities of our developing countries? Are Nano-satellites fitting into this category?

Kenya and Many African countries do not own a single satellite (except Nigeria, Algeria , South Africa, Egypt and maybe a few others). We can therefore assume that satellite technology does not exist in many African countries. Will Nano-satellite provide a means by which Technology Transfer can occur?

- Most African countries are accessible by air and therefore foreign Nano-satellite experts can work effectively in these countries

- Training of workers in Japan. As suggested in the Mission Idea contest there will be tutors from the developing countries who will be trained in Japan and then train others

- Maybe we can create departments within our local universities where the technology is taught