Nurturing Homegrown Innovators and Developing Technology for Public Services and Economic Development

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Do you know why is Nepal still a least developed country despite having so many types of political systems, so many “talented” political leaders, and getting so much foreign aid since 1950?

You can write a book or do your PhD on this topic.
Nepal’s Import and Export Ratio = 13:1

Import = US$ 8,760,119,598 (US$ 8.76 Billion)
Export = US$ 672,089,549 (US$0.67 Billion)
Trade Deficit = US$ 8,088,030,039 (US$8.08 Billion)

93% Import and 7% Export = Huge Trade Deficit

Source: Ministry of Finance (http://mof.gov.np)
(Fiscal year 2016 -2017)
How did that happen?

• No government, since 1950 after Nepal was opened to outside world, gave priority for the development of science, technology and innovation.

• No government understood that talented human capital is the most important capitals needed for the economic development of a country.

Result: Lost all the talented, innovative human capital.
It is still not too late.
Vision of the National Innovation Center

- To use the **most precious human resources** for the economic development of Nepal
- To **provide opportunities for** creative and talented people in Nepal to use their creativity
- To **uplift Nepal** from the list of the least developed country to a developed country through innovation
How NIC will support the innovators?

• Step 1 - Provide full financial support, space, tools and mentoring for accelerating prototype design,
• Step 2 - Provide full financial support, space, tools and mentoring for product development,
• Step 3 - Provide full support for getting patent right, trade mark, intellectual property right, etc.
• Step 4 - Provide support for connecting them to investors so that they can commercialize the innovative products and services aimed at impacting the economic and social development.
Goal

• To establish an independent and financially sustained innovation center.
Plans for Sustainability

• NIC is ready to invest on anything that can bring income for the center on regular basis.
• Working on several plans to generate financial resources in Nepal.
• One idea is to develop a 10 MW to 15 MW hydropower station.
• Other ideas: Invest on renewable energy such as solar, bio-gas and manufacturing businesses.
Current Activities – Technology Driven Projects

• Building a **medical drone** to deliver medicine in remote areas – 12 people working
• Developing **water filter** that can also **treat** the water using chemical – 4 people working
• Developing **battery maintenance system** for electric three wheelers – 2 people working
• Working with Nepali Food Scientists to develop some **food products** for commercialization
• Ginger processing technology and **ginger products**
• Finding ways to develop some **herbal products**
• Many **more ideas and requests** have been received.
Medical Drone
For Delivering Medicine in Remote Villages

- Rotor Blade – Octocopter (Range 15 KM max.)
- Fixed Wing Drone – Range 30 KM or more
Some Team Members of Drone Project
Test Flight
Water Filter and Treatment System
Main Features and Services of Drones

• It is designed, fabricated and assembled by Nepali Engineers.
• It will be fully autonomous.
• It will deliver medicine up to 3 Kg.
• It will collect body fluid sample for pathological testing.
• A hub will be set up at nearest hospital with doctors, lab technicians, and a pharmacy to serve the rural clinics.
• Rural health posts, the hub and city hospitals will be connected to each other for telemedicine.

Major Partners: Ministry of Health and Local Governments
Projects driven by public needs and services – Smart Village/City Program

- There are **753 units** at local level government – village, town, cities, metros
- Building a package of applications that can help to provide **health, agriculture, education services**.
- ‘Smart’ is buzzword – it implies things like sensors and big data to many, but for us – it will be **all about process improvements and information distribution using Internet and broadband**.
Building a Maker’s Space and Research Lab in Kathmandu at the premise of Tribhuvan University, Kirtipur
Chinese Proverb

“Give a Man a Fish and You Feed Him for a Day. Teach a Man to Fish, and You Feed Him for a Lifetime.”
Thank you
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