

LECTURE 12

DETERMINING A SUSTAINABLE APPROACH (CONT'D)

10) Health care According to the Global Health Council, rather than the use of professionally schooled doctors, the training of villagers to remedy most maladies in towns in the developing world is most appropriate. Trained villagers are able to eliminate 80% of the health problems. Small (low-cost) hospitals - based on the model of the Jamkhed hospital – can remedy another 15%, while only 5% will need to go to a larger (more expensive) hospital. Before being able to determine the cause of the disease or malady, accurate diagnosis is required. This may be done manually (through observation, inquiries) and by specialised tools. Herbalist medicines (e.g. tinctures, tisanes, decoctions) are appropriate medicines, as they can be freely made at home and are almost as effective as their chemical counterparts. A previous program that made use of herbal medicine was the *Barefoot doctor* program. A phase-change incubator, developed in the late 1990s, is a low cost way for health workers to incubate microbial samples. Birth control is also seen as an appropriate technology, especially now, because of increasing population numbers (overpopulating certain areas), increasing food prices and poverty. It has been proposed to a certain degree by PATH (program for appropriate technology in health). Jaipur leg was developed by Dr. P. K. Sethi and Masterji Ram Chander in 1968 as an inexpensive prosthetic leg for victims of landmine explosions. The *Leveraged Freedom Chair* is a low-cost wheelchair designed specifically for rough terrain. Natural cleaning products can be used for personal hygiene and cleaning of clothing and eating utensils; in order to decrease illnesses/maladies (as they eliminate a great amount of pathogens). Note that many Appropriate Technologies benefit public health, in particular by providing sanitation and safe drinking water. **11) ICT4D** ICT4D refers to information and communication technologies for development, and examples include: The OLPC XO, Simputer, Eee PC, Classmate PC, Studybook, PIC, Zonbu, Linutop, small form factor PC's and other low cost computers are computers aimed for use in developing countries. Besides the low price, other characteristics include resistance to dust, reliability and use of the target language. Offline knowledge sharing projects to give access to development information in areas without reliable and affordable internet access.

The Wind-up radio and the computer and communication system planned by the Jhai Foundation are independent from power supply.

TECHNOLOGY AND COMMUNITY DEVELOPMENT BCD 216

Mobile telephony is appropriate technology for many developing countries, as it greatly reduces the infrastructure required to achieve widespread coverage. However, mobile phone network may not always be available (it depends on the location) and may not always provide both voice and data services.

Loband, a website developed by Aptivate, strips all the photographic and other bandwidth-intensive content from webpages and renders them as simple text, while otherwise allowing one to browse them normally. The site greatly increasing the speed of browsing, and is appropriate for use on low bandwidth connections as generally available in much of the developing world.

An increasing number of activists provide free or very inexpensive web and email services using cooperative computer networks that run wireless ad hoc networks. Network service is provided by a cooperative of neighbors, each operating a router as a household appliance. These minimize wired infrastructure, and its costs and vulnerabilities. Private Internet protocol networks set up in this way can operate without the use of a commercial provider.

12) Banking and finance

Through financial systems envisioned especially for the poor/developed world, many companies have been able to get started with only limited capital. Banks and government and NGO programs lend appropriate amounts of money (i.e. small amounts, often starting below \$100) to people wishing to start a business with microfinance. Organisations, communities, cities or individuals can provide loans to other communities/cities (such as with the approach followed by Kiva.org, MicroPlace and LETS). In other systems, people form a Rotating Savings and Credit Association (ROSCA or Chama) to take turns in access to the combined pot of money - this depends on community trust and accountability. (Variations are practiced in many societies). Finally, in certain communities (usually isolated communities such as small islands or oases) gift economies can be effective due to the small community and the importance of social acceptance.

NB: There will be a random selected paper on technology and development which the instructor will require the students to read halfway through the quarter.