Technology plays a significant role in the development of a country. We can clearly see the impact of technology on the development of Developed countries. These countries have developed their ability to innovate and learning by doing, by investing public funding to help finance research and development in critical areas. Their meticulous planning has made them the ones the Less Developed Countries have to look up to, in various fields like- education, health, agriculture, infrastructure, water, sanitation etc.

Less Developed Countries (LDCs) have lower living standards when compared to the developed countries. They have an undeveloped industrial base, and lower Human Development Index (HDI) relative to developed countries. Some Less Developed Countries are India, Afghanistan, Angola, Bangladesh, Bhutan, Cambodia etc.

The reason for the Less Developed Countries to have lower living standards and lower metrics mentioned above is because they are unable to integrate the advanced technologies into their system. The reasons that are largely responsible for this to happen are:

1. Socio-economic and political reasons

Most commonly occurring scenario: the ruling government introduces certain plans and invests in them. If their government is overthrown in the upcoming election, the new ruling government thrashes all these plans and introduces new plans. So, the planning and money invested by the previous government becomes wasted. This is what happened in the state of Andhra Pradesh. The previous TDP government brought in investors from Singapore and Japan on various projects for building a new capital city. They had collected lands from various farmers for the capital and paid the landowners ample money. But the current YSRCP government, sent all these investors back and ditched the plans of the new capital city. They proposed a three capitals plan for the state and all the projects undertaken by the previous government are now in hold.

2. Lack of technology in education

Many colleges in the country lack the sophisticated lab equipments required for the courses they offer. Like, there are less resources for core branches like Mechanical, Electrical Engineering in our college.

For students in rural areas, internet is not available. So, they don’t have the same access to education facilities like the students in the cities have. This creates a divide among the students. Also, the rural students will have lesser job opportunities in the future. Whwn the youth are provided proper education, they will provide a boost to the economy when they go for jobs. But without proper education, they become a liability to the country.

3. Less investment in Research and Development

LDCs do not invest much in Research and Development. This is because the development of indigenous Research and Development takes a lot of time. It is a long term investment. But LDCs cannot afford to spend that much time because they have to catch up with the Developed countries and existing market trends. So, they tend to collaborate with companies of other countries with rich R&D. One example of this is Maruti Suzuki, which is a joint venture by the Government of India and Suzuki company in Japan. Suzuki provides the R&D for the engines to Maruti and Maruti manufactures the automobiles.

4. Transport and communication

LDCs are generally not having transport facilities on par with the western world. This is because, the integration of those technologies has certain prerequisites which LDCs can’t fulfill. For example, consider the trains in London that act as means of transport analogous to our Indian city buses. But we can’t introduce those trains in India because, those trains can only run if the tracks are neat and tidy, There should not be any waste on the track. But in our country, such cleanliness can’t be maintained easily because people are not concerned about cleanliness of public property. This is one example.

5. Lack of trained manpower

We have lesser number of skilled labour contributing to the economy when compared to the unskilled labour. As mentioned in point 2, most students in rural areas can’t receive education at the same level as those in cities. So, to earn money they turn to unskilled labour. If the skilled to unskilled labour ratio can be increased, the economy will be boosted significantly.

6. Brain Drain

This is a consequence of points 2 and 5. When there are less opportunities for skilled labour or trained manpower, the students move out of their LDCs to developed countries in search of job opportunities. If they are talented enough, the western countries gladly accept them for working and they contribute significantly to the already well-developed economy.

India can make several technological interventions that can make it an inspiration for other less developed countries. The Government of India and its agencies should take up initiatives by collaborating with scientific organizations, financing research projects and training programs of local scientists working in the developing countries according to their own priorities by taking necessary assistance from global Financers like World Bank.

Government of India has established the Indian Institutes of Technology which are the premier engineering institutes in the country. We have Indian Institute of Science in Bengaluru and IISERs which are top class research institutes in the country. We also have Indian Space Research Organization (ISRO) which has made the nation proud many times with its achievements and is reputed space organization worldwide. So, the future is not bleak for such indigenous institutes. The only thing we need now is providing the right employment opportunities the graduating students to avoid brain drain. The government can provide the students a way of employment by making them with solve various problems in the country. All such measures will definitely help in bolstering India’s image at the international level and also pave a path for other LDCs to follow.