

# 20

## Emphasis on IT and R&D

### 20.1 IT (Information technology) and professionalism

We will adopt this technology in all walks of life to attain accurate and quicker execution of our plans and projects. Talking briefly, following activities can be conducted with the help of IT :

- Application : Project planning, implementation and monitoring
  - To cut down time in working out a project and its detailing. For example all **city centres** can be designed on similar pattern except for regional touches, so that the whole country looks alike.
  - To standardise and economise on designs and implementation.
  - Even the residential colonies and urban development can be systematised and civic services optimised.
  - To monitor a project or activity through a remote place.
  - Instant solutions to problems arising at site.
  - Immediate corrective measures that can be directed from the controlling points.
  - To give boost to research and development (R&D) activities such as,
    - ♦ Accelerate the existing activities.
    - ♦ Details on activities at one centre shall be available to others to avoid repetition of similar work and to get assistance in removing hurdles.
    - ♦ Dissemination of knowledge and making research easy and fast.
  - Fostering amongst all a feeling of togetherness, one people and one nation.

The country is taking a big leap forward by adapting to IT methods in routine work and monitoring the activities through internet. Gradually all important activities will be taken on internet. Working, output and accuracy will improve. Now also many public related

activities are available on internet and they are on the rise and we can feel their impact in our daily lives such as air and rail reservation, ticketing and banking. Private business houses can keep contact with their factories, offices and godowns and monitor bank position etc. from a remote place. **It is quite likely that with gradual upgradation of this technology and its growing applications in all fields, manpower may be rendered surplus. As a consequence, strict control over population becomes mandatory and utmost urgent.**

Through the plans that we have discussed in various chapters, enough job opportunities will emerge for the first 15 years and all unemployed will be gainfully employed as promised already. This period can be considered as the making up or building up period. It will call for a lot of work in different fields. But such activities will gradually stabilise as we approach towards our goals. Nevertheless, upgradation and development in most fields will remain a continuous process. While a lot of new job opportunities will emerge, these may recede in absolute terms as the basic development work and infrastructure would be ready by then and wherever possible, use of machines and automation shall be adopted to keep pace with and be ahead of the affluent societies of the world. Moreover due to the advancement of technologies and our own scientific working methods that we shall adapt gradually, the manpower requirement will recede. **Even today we can feel the brunt of it due to mechanisation, automation and paperless offices, though it is just the beginning. But we can surely cope up with the situation if we religiously practise family control norms discussed in Chapter 13.**

- The above are some applications of IT in routine jobs and that shall be on the rise. The advanced societies have been making use of it for long and are also utilising the services of our talented IT professionals in large numbers to cope up with their ever rising demand for such services. Demand for IT professionals shall remain phenomenal in times to come also, even in our own country. The performance of our youth on this front has been remarkable and is proving to be a good source of foreign exchange earnings for our country. IT's encouraging performance has infused a false hope in many of us that larger earnings from IT sector can bail us out of our present financial mess. **But we may caution the countrymen that IT sector alone is not sufficient to sustain a large country of 115 cr neither can become a source of large employment. It is only a service sector, and can only support a system, not create it. The prime necessity is to give boost to primary (agriculture) and secondary (industry) sectors that**

**are not growing as required in the face of poor infrastructure and government apathy.** By doing software jobs for others some of us may think we can become a super power, but that is being too short-sighted. If we can become a super power by doing so then what will they become who employ us and use our services for a pittance to execute their enormously large jobs?

No wonder our guardians take pride in telling the country the good our IT engineers are doing to the nation by serving other nations and sending their earnings home to support their ailing system. Also that we are capable of sending out at least one lac such engineers every year. **Does not it sound like a goon sending his boys for begging for his own living? It seems the majority of our educated class also thinks so. What Bihar is for the country's urban areas, India is becoming for US and other affluent societies. Question arises should we always work for others and take pride in working for thee? Should we not be concerned for our own country also? Back home we are so much under developed, and if we wish we also can progress and make use of our talent for our own good. But we do not even have enough jobs to utilise their expertise yet we dream to become a super power!** Even if we can earn a fortune in foreign exchange through IT, can it sustain the whole nation? The exodus per force has slowed down as many countries have imposed restrictions on such an influx in view of their own unemployment problems. **Unless therefore we are able to stand on our own legs we shall never attain the strength to run. On crutches one can only totter and make noise, not run. Remember how Kerala which was flourishing on such earnings, crumbled hopelessly when our people from Gulf countries — Saudi Arabia, Bahrain — were sent back home unceremoniously a few years back.**

Our country too has enormous opportunities provided that we explore them. In *our* working plans not only will NRIs abroad be wanted for our project implementations, but many more. Their exposure and experience abroad will be of great benefit to us. We are sure our people in other countries will take pride in working and developing their own nation.

## 20.2 Inept research and development (R&D)

The government established a lot of institutes to do research and technological works, but these have generally failed to make a dent in any field. We largely have to depend on the researches and development of other nations to meet our needs. Today we lack in most fields and

depend on others for technology, essential goods, precision machines, aircrafts, defence equipment, life saving drugs, and in the primary sector for seeds, fertilizers and mechanised farming to name a few. R&D has been on the priority list of our governments also for the past 60 years but has contributed little in real terms because it lacked purpose and direction. The efforts of researchers and their research works have not disseminated to the field – either these were inadequate or impertinent or were victims of our stone- faced system and remained ribboned. Our products are despised by our own people and we take pride in using foreign products. The half cocked and callous approach, second grade treatment to our scientists and others involved with research activities, lack of application or urgency, bureaucratic hold-ups and their incompetence are some reasons of dismal performance of our R&D sector. Lack of guidance and encouragement from the system, made even the private sector relent on R&D and the country grossly slackened on this front.

The consequence of lack of R&D has resulted in lack of creativity and imagination in our people. It has cultivated in us a habit of imitation and copying others. China's R&D and innovation in creating goods especially for Indian markets is praiseworthy and worrying. Worrying because it is affecting our people. Items like souvenirs, children toys, wedding lights, decoratives, various types and designs of Hindu deities, candle sticks, electric diyas, lighting frills and pooja material for Indian festivals. Play items like water sprinklers, flit guns and many such toys for Holi festival is an obvious outcome of our lack and China's intense R&D and innovations. We are a regular and large consumer of these items for centuries, but China's attractive and much cheaper innovative products are immensely liked and widely accepted by us. They are gradually throwing our traditional items out of the market. It is a severe blow to our tiny and handicraft industries, rendering many individuals and families, who are wholly dependent on this business for generations out of job. It is indeed, remarkable that China, who is neither conversant with nor using such items, has developed them so attractive and cheap for us that we discard ours in preference of theirs. It should play an eye opener for us. What we have never improvised for centuries, they have accomplished in a short period to our surprise and shock. Surely, they are making many more such items for other communities and parts of the world, to their enormous economic prosperity. See their amazingly rising exports year after year, Table 21.1.

In the same context it is pertinent to mention our alarmingly rising trade deficit (Table 5.3) where oil bills make a large share. It calls for

extensive research on this front to find out substitute to petroleum, else others shall do this also for us at the cost of our sovereignty.

We must recognize the good work done by our scientists, engineers and others and give them due encouragement. Continuous upgradation of a finding must be a regular process to always stay ahead. On agricultural front a lot seems to have been done but high quality hybrid seeds are still out of our reach. We have to depend on our own hybrid seeds that are presently inadequate to provide the desired quality and yield as compared to imported hybrid seeds. For life-saving drugs also we have to depend on outside world. The quality and magnitude of our research activities are far too inadequate to support our industries, pharmaceuticals, agriculture or enable them become strong contenders in the global market. Until we achieve this, our markets will remain exposed to aggression by the multinationals (MNC's), and our industries will be unable to compete with them.

We are doing little on life-saving drugs to save mankind and are busy mostly in routine kind of researches. In the field of defence techniques and equipment, we have remained back-benchers despite the fact that we have a fleet of well equipped and sophisticated ordnance establishments and numerous PSUs supporting them (Chapter 23). These establishments could meet our defence needs but we failed to make use of them. If we had tried, we could have become by now not only self-reliant in our defence needs, even had become capable to supply our arms and ammunitions to other nations. **All our gigantic defence establishments and research establishments have failed miserably, reflecting the gross incapability of our system to run anything for any gainful output under their control.**

#### RESEARCHES VS. CRUELTY TO ANIMALS

[We have been forced by the government to abandon many of our researches half way on this plea. Similar to banning of cow slaughter (Section 18.7(x))]

- This has been a long debated issue, not only in our country but the world over. Sometimes the noise is less, sometimes more. Cruelty to animals is indeed inhumane and we must refrain from it. But as we said in 'Life Cycle' (Section 18.8) we consume flora and fauna for our survival. Similarly R&D is an equally essential field, without which it is not possible to find out new means of human immunity or life saving drugs against many incurable diseases like cancer, AIDS and diabetes. Research is an unending process towards satisfying human quest to

learn from nature and surroundings. It must continue for the welfare of mankind. Even in the field of agriculture where research on animals can open up new avenues our quest must go on. If we don't do it, others would do it. But in doing so the element of cruelty must be mitigated as much as possible. A callous attitude towards these speechless creatures surely amounts to cruelty. We should not forget, we are making them sacrifice their lives for the welfare of mankind.

- Presently our contribution towards R&D is only a trickle and if we wish we can always stay behind and watch others doing R&D. They shall surely find out cures for our diseases also. But can we have guts to discard their medicines – as for these inventions they would have also sacrificed a few animals at their end. By the way, our polity and bureaucracy are in any case privileged to get treated by the latest techniques and medicines at the best hospitals around the world. Surely when all this is available for a song there is no need to exert. We may avoid cruelty to animals, it at least makes a slogan for the world to know, so what if the works on many research projects that are underway come to a halt or get shelved. Menkaji, good leaders must suggest solutions rather than only nag. Nagging alone does not make a good leadership. If conditions of R&D centres in our country are not up to mark, better help improve those and that shall be constructive leadership, rather than stopping the work or closing down the R&D centres.

#### **Note**

In light of the long drawn imbroglio and serious operational problems faced by the pharmaceutical companies in continuing their researches and production activities, many of them (Ranbaxy and Nicholas Piramal being two at present) are now planning to set up their R&D centres abroad. Each of that may cost over \$ 300 m (a news item May-June 2002). This reminds us of Aditya Birla who had to set up his industries in other countries when he was not allowed to open up industries in his own country (Section 10.2).

Surely a few years hence, another government would invite R&D centres from other parts of the world to open up their centres in our country, like we are inviting MNC's to open up their industries and shops here. And lo! many pharmaceutical MNC's are already invading our soil for their R&D centres. Astra Jineca and Phifzer have already set-up their centres here, (while many are in the offing (news item, March-April 2004)).

*हम भी महान, हमारा भारत भी महान*