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Science & Tech

Comstech meeting — time for

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The 8th ministerial meeting of the Commission on Science and Technology (Comstech) opens on December 16 in Islamabad with the usual fanfare and protocol. The representatives of 50 or more Muslim countries, including several ministers, will attend the three-day conference which marks the 14th year of its establishment. A busy agenda has been prepared on which speaker after speaker will applaud the achievements of Comstech and promise great things for the future. But this is also a time for self-appraisal. Will the delegates do it or remain polite to each other?

Comstech was established in 1983 with great expectations when it charted out a very ambitious 20-year programme to accelerate the development of science and technology in the Ummah countries and prepare it for entering the 21st century. Fourteen years on, it is only fair to ask ourselves: What have we achieved nearly two-third of the way down the road? Will we be ready to face the realities or dodge this question with diplomatic niceties and pleasantries?

Since then we have made progress on many "fronts". Our population has increased. The number of member states has gone up. Following the example of other international organisations, we have held a number of meetings, seminars, workshops and even issued several reports as an index of our activity. But unfortunately we have failed to make a real impact on the development of Science and Technology in the Ummah which may even have slipped back in relation to the rapid advancements in the world. This demands that we must look for reasons as to why it happened so.

The Muslims constitute about 20% of the world population but contribute only 5% of

the world GNP. In fact the total GNP of all the 56 Muslim countries of the OIC is less than the GNP of France. We contribute only 7% to the world trade and our exports consist largely of commodities such as oil. Last year the exports of South Korea, Taiwan and Hong Kong alone exceeded the total exports of all the Muslim countries put together. With the recent fall in oil prices and glut in production, the industrialised countries are calling the shots and our oil revenues will fall.

All this is because we have been relying too heavily on export of commodities (the prices of which continue to fall in real terms) instead of manufactured goods (which become costlier year after year). The result is that, inspite of our wealth of material resources and strategic position, we do not have much say at the global level, and the industrialised countries continue to push us around economically, politically and militarily.

The only way to reverse this situation is to use the tools of modern science and technology to increase our economic strength and transform our human and material resources into valuable products and services to meet our own needs and expand our exports. Nobody disputes this prescription, but then we are unwilling to take the "medicine". It runs counter to our sense of apathy, mood of slumber and infinite inertia. Time has come for us to open our eyes and face realities. Inaction on S&T front will doom us to the backwaters of history in the coming millennium.

Science and technology begins at home and not in international organisations. The first thing we have to ask ourselves is: Do we have a commitment to promote science and technology in our respective countries and use it as a tool for development? Without a strong and unwavering national commitment to S&T by the leadership in the

country concerned nothing will happen. As things stand, very few Muslim countries have given S&T any priority in their national planning. We have become used to paying lip-service to science because it is fashionable to talk about it. Most countries do not even have Ministers of Science and Technology. They do not have any well defined long-range S&T Plans. If they happen to have them, by chance, they just file them because they do not fit into their strategic thinking.

Perhaps we are all facing difficult situations at home on the economic and political fronts and our leaders are too busy resolving the day to day problems! Ignoring S&T, for whatever reason, can be fatal in the highly competitive global environment where market economies will rule and trade liberalisation will break the protective barriers and only the fittest will survive.

We should ask ourselves how much do we talk about S&T and how much do we actually spend on it? At the moment the Muslim countries spend on an average spent less than 5% or about (\$5 billion) on Research and Development (R&D). This is less than what one leading conglomerate spends on development of its products to meet the competition from others. Unless we put more resources into S&T we will get nowhere.

Given that science and technology receives a place in the national agenda, then the next issue is do we have clear-cut S&T Plans and programmes to translate our desires into reality. It is amazing how few Muslim countries have actually prepared concrete S&T Plans related to their actual development needs and shown the determination to implement them. Malaysia is one of the few outstanding exceptions which have produced and followed such a plan. It is now reaping the benefits and has already becoming a centre of high technology prod-

ucts and services. It constitutes only 2% of the population of the Ummah and accounts for 20% of its exports.

Actually Science and Technology Plans, just like Economic Development Plans, offer a framework for development, harnessing and utilisation of technology and as a means of focusing on specific fields with benchmarks to judge the progress or otherwise. Further, the existence of such plans give the various Ummah countries a clear idea of what is being done by others to enable them to seek cooperation and exchanges in areas of common interest. This way we can evolve strategies for advancing together in certain chosen fields instead of talking about cooperation in general which never materializes. For instance, in 1984 Comstech outlined 8 Thrust Areas for cooperation which included Food and Agriculture, Health, Manpower Development, Research and Development, Information, Current and Future Technologies, Resource Development and Energy. Since the national priorities varied from country to country, it became difficult to bring the various Muslim states together and we have not been able to get any cooperative programmes. Similarly the idea of having 15 High Technology Institutes relating to such fields as Ocean Sciences, Tropical Medicine, Renewable Energy, Space Sciences etc. have failed to materialise.

In the preparation of Science and Technology Plans one cannot just copy somebody else's plan and transplant it at home. Nevertheless, one can definitely learn for the methodology used by others in development of such plans. For instance, the way Malaysia developed its strategic development plan can teach us a lot. All S&T plans must be indigenous in the sense that they have to respond to local needs and conditions and there is no substitute for making self-effort in this regard with whatever cooperation one can get in terms of methodol-

reappraisal

ogy and techniques.

Another major problem which the Ummah countries face individually and collectively is the lack of S&T infrastructure in terms of manpower and facilities. One estimate indicates that there are no more than 300,000 scientists and technologists in the Muslim countries as compared to over 10 million in the world. This means that we account for only 3% of the world skilled manpower which is very low as compared to our population and development needs. We have to invest more in the development of scientific manpower and skills. We should not be afraid of training more technologists than we need in the near term because human resource development is a very valuable asset. It not only accelerates growth at home but attracts investments from abroad. The industrialised countries parcel out production where it is more economical. This is why China is attracting more investment than other countries.

Comstech aims at increasing cooperation among the Muslim countries which is indeed laudable, but implementation of any cooperation programme, be it in science and technology or industry, depends not only upon the government to which are essential, but also upon understanding and relationship between scientists, technologists and industrialists. Comstech is yet far from realising its potential. In fact it is a small miracle that it is still working largely due to the continuing commitment from Pakistan to back it up financially and administratively and the help it receives from Saudi Arabia and the Islamic Development Bank.

It is unfortunate that the operational body for implementing S&T projects established by OIC called Islamic Foundation for Science and Technology and Development or IFSTAD had to be wound up after a

decade or so because of lack of support from member states. The Ummah countries have been much more forthcoming and finance cooperative S&T programmes and activities if we really want to forge ahead.

We must remember that it took the Western countries decades if not centuries to evolve meaningful cooperation in Science and Technology and we cannot expect early results unless we use the right approach. The key lies in promoting exchange of scientists and experts as a prelude to developing cooperation. At present, there is hardly any flow of researchers, teachers or students within the Ummah countries except within the Middle East where the situation is entirely different. It is necessary to have a deliberate policy of facilitating large scale interchange of young researchers, experts, planners and industrialists to create a climate of understanding and then evolve programmes which will be acceptable and implementable by the countries concerned.

One of the major issues which the Ummah faces is how to bring the Central Asian Muslim states into the mainstream of Science and Technology? These countries have a vast potential and tradition of scientific research. However, they have remained relatively isolated and in some cases over-specialised in selected fields. Ummah countries can benefit from their know-how in key areas and at the same time contribute towards the broadening of their horizons and spectrum of their activities.

Let us hope that this Comstech meeting will break new ground instead of repeating the old cliches and platitudes and make a more objective appraisal of our achievements and shortcomings so that we can make greater headway in the future.

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