

Modernising food production

Success in achieving food security and other development objectives will be dependent on multidisciplinary research and adequate number of trained personnel in the required disciplines.

AHMED A. AZAD

THE prime minister on September 26 delivered a very significant speech at the meeting "Partnering for Food Security" jointly organised by the UN Secretary General Ban Ki-Moon and US Secretary of State Hillary Clinton. Her presentation was both timely and highly relevant in the context of Bangladesh's acute need for food security. There was a major emphasis in the PM's speech on food governance and more equitable trade relations favourable to the developing world and particularly the least-developed countries (LDC). I will confine my comments to research-oriented development activities necessary for implementing her proposals for achieving food security.

The PM called on the international community to agree on and implement sustainable agricultural policies, transfer of technology, and equitable and fair trade rules for food and agricultural products with special and preferential treatment for LDCs. She said that it was unlikely that there would be further breakthrough on high-yielding crop varieties developed decades earlier without new research. She also mentioned that agricultural production, and thus food security, in Bangladesh is severely affected by shortage of energy, progressively decreasing arable land and erratic patterns of floods, droughts and cyclones as a result of climate change.

The PM also pointed out that lack of food security also impacts adversely on health equity. Thus, there is a need for not only high-yielding food crops but also the production of new varieties resistant to salinity, drought, and water submergence which requires extensive research. The

PM remarked that paucity of funds had brought food and agricultural research to a standstill.

The PM hoped that in the climate change outcome conference to be held in Copenhagen in December there would be a concrete resolution to make available adequate and easily accessible funding for adaptation and affordable eco-friendly technology transfer to LDCs, which are critical for ensuring food security.

"Indeed, if only the developed countries now fulfill their ODA (overseas development assistance) commitment of 0.7 percent of their gross national income to developing countries, and 0.2 percent to the LDCs, by 2010, as affirmed in the Brussels Program of Action, much of the problems, including those challenging food security, would be resolved," she said. It was reassuring that she pointed out that the mitigation programs to be adopted must address the specific needs of relevant countries for which national ownership of the development agenda must be ensured.

The PM has correctly pointed out that our development agenda must be need-driven and not donor-driven. However, are we properly equipped and able to implement such a development agenda? Much of the global economic downturn and climate change related environmental degradation is a direct consequence of reckless and exploitative policies of developed countries. So it is only fair that they make a very small contribution to right some of the previous wrongs done to LDCs such as Bangladesh. But financial handouts for short term corrective measures and importation of technology and foreign expertise without out indigenous capacity building will not lead either to economic independ-

ence or to sustainable development. This can only be achieved through scientific and technological (S&T) proficiency underpinned by excellence in education.

Since Bangladesh is an LDC and a country lagging in S&T proficiency, any financial support received for achieving food security and poverty alleviation, and for countering the adverse effects of climate change, must primarily be used to build the S&T capacity required to meet these challenges from within.

The PM has correctly identified our development priorities as food security, health equity, energy sufficiency and reversal of the adverse effects of climate change. The incumbent government in its election manifesto promised to transform Bangladesh into a middle income and S&T proficient state by the 50th anniversary of independence (Vision 2021). This is supposed to be achieved through a Digital Bangladesh where the primary objective seems to be the development of world-class ICT. There is no doubt that ICT is very important for transforming Bangladesh into a modern and efficient country. But ICT alone is not capable of meeting any of the above development objectives; all modern technologies, and most particularly biotechnology, need to be developed simultaneously.

Considering the state of our economic and S&T standing, it is very important that we change the culture of higher education and research, focus primarily on national development priorities and build partnerships between academia, research institutions, government and industry to achieve these objectives (see Ahmed A Azad, "We are what we study," September 2009 issue of FORUM).

Biotechnology is the key to the development of new high-yielding food crops and new varieties resistant to drought, flood and salinity. It is also the technology that will provide affordable drugs and vaccines, and eco-friendly biogas, biofertilisers and biopesticides. In spite of its potential for meeting national development objectives, particularly food security, biotechnology is

a largely neglected discipline in Bangladesh. The government has established a National Institute of Biotechnology (NIB) at great cost but it remains an empty shell without any defined focus or priorities. The government has published a National Biotechnology Policy that is too broad in scope to be effective but has not specified how research and development activities involving biotechnology are to be funded.

The biotechnology community of Bangladesh has produced a position paper that suggests how the government's biotechnology policy could be implemented, and also prepared a set of specific recommendations about how the largely non-functional NIB could be restructured and financed so that it could become an internationally competitive "centre of excellence." The position paper and the specific recommendations were submitted formally to the government in April 2007, but the biotechnology community is still waiting for a response. Since the PM and the government seem to be genuinely concerned about food security and other priority development objectives where biotechnology is likely to play a crucial role, they could perhaps carefully assess and act on the recommendations submitted to the caretaker government more than two-and-a-half years back.

Much of the funding required for a fully functional, productive and internationally competitive NIB, other similar national institutes for ICT, energy and climate change, and also specialist research centres at universities that focus on national development priorities such as food security, could be funded from the sources mentioned in the PM's speech. There are also many other international sources of funding that could be accessed for major equipment and specialist expertise. Development and technology transfer activities could be carried out in collaboration with industry partners. It is also worth noting that in his address at University of Cairo in June 2009 President Obama offered to collaborate with the Islamic world in establishing regional "centres of excel-



FIROZ CAZI/DPK NEWS

Will there be enough?

lence" among other initiatives in higher education.

The PM has made clear her intentions on food security and other national priorities, and her government is committed to implementing the necessary measures. But good intentions alone will not make it happen even if funding is available from development partners. Success in achieving food security and other development objectives will be dependent on multidisciplinary research and adequate number of trained personnel in the required disciplines. This is not available in any one academic unit or research centre within Bangladesh. Thus, coordination and collaboration are required between different academic research centres and public research institutes that have complementary expertise and facilities.

There are logistical problems as these academic units and research institutions fall under the jurisdiction of different ministries and government departments. Partnerships will also need to be established with relevant industries with the active support of the Ministry of Industry.

Thus, for successful outcomes, the first requirement is coordination of research-oriented development activities between

relevant ministries such as education, S&T, agriculture, food, industry, health, energy and environment. As a first step, the government could consider the formation of a parliamentary committee for food, health, energy and environmental security that could oversee the activities of a new department of advanced studies, research applications and technology transfer. This department could provide administrative support to the NIB and other national institutes for ICT, energy and climate change, and university research centres involved in research on food security and other areas of national priority. These measures would ensure focus and coordination in areas of national priority, collaboration and cooperation between research groups and with industry partners, and proper utilisation of available funds and resources. These are the minimum requisites for implementing the PM's proposals for achieving food security and other research-dependent development priorities.

Ahmed A. Azad is a TWAS Research Professor involved in research capacity development in Bangladesh and other developing countries. Email address: a.azad05@yahoo.com.au

Impediment to rapid development

Development in a normative concept, which implies choices about goals for achieving what Mahatma Gandhi called "realisation of human potential."

Z.A. KHAN

GROWTH, as we know, does not accomplish enough by itself, and sometimes has unfortunate consequences. It is said that the hallmark of cancer is growth without development. Development in a normative concept, which implies choices about goals for achieving what Mahatma Gandhi called "realisation of human potential." Development involves major changes in social structures, which may be achieved by reduction of inequality and eradication of absolute poverty.

Development aims at ensuring self-sustainability, which indisputably includes food, shelter, health, and protection to life and property. It should assure people that they are not being used as tools to ensure growth of others with the sweat of their brows. It also focuses on creating an environment where people feel that they are emancipated from the stigmatised sense of

alienating material conditions of life and servitude of man to nature, ignorance, other man-made miseries, institutions and dogmatic belief. In these considerations one can deduce that development means increase of the capacity of the people to influence their future.

It will now be prudent to identify the dimensions of development that are expanding the capability to determine one's future. Development must be stimulated by increasing human resources, equalisation of the ability to consume, and acquisition of leverage for the poor -- which is regarded as a form of strategic behaviour that empowers them to change or shift from policy regarding distribution issues.

There must be real concern to see that development plans have long range dimension, taking into account fragile soil, pollution, limited mineral resources, biodegradation etc., regardless of the conflicting nature of socio-political configuration among countries.

There is no denying the fact that the contours of interdependence are widening as depletion and discovery are taking place simultaneously at various places in the world. While inevitability of dependence of the developing countries can be obscured, these countries must exercise alertness, tolerance and thrift when offering reciprocity." Keeping these fundamental and compelling guidelines in view, we should now see which of these have not received adequate concern of the planners, which has consequently affected rapid development in Bangladesh.

Even if the scale of development is humble in Bangladesh, its foundation is gradually widening. Bangladesh inherited a ravaged and war-torn economy. Its development achievement is enviable compared to other developing countries in the areas that are easily reached or had political bigwigs to influence allocation of more funds -- depriving the other areas of the much-needed fund. Thus, the growth pattern in Bangladesh is skewed and this has enticed influx of population to the growth centres that were ill-prepared to accommodate people that came in quest of livelihood.

The challenge of capacity building, a major indicator of development, suffered a

major setback towards attainment of sustenance as the areas having promise of development were abandoned and, therefore, productivity came to a grinding halt -- causing inadequate supply of raw material locally.

This has largely increased dependence on import from abroad at a time when money value is fluctuating and erratic. Since we are not yet capable of supplying adequate industrial or agricultural raw material, our import bills become heavy. So interdependence, a major factor of development, failed to play a major role in designing our development plan.

We know that management, which gears capacity building, "is not just a question of efficient service delivery or of effective control over the existing allocative system of our country, but is a change-oriented field concerned with the institutional dynamics of social justice which is a relevant indicator of development."

Our management has been based on "top down" philosophy. Unfortunately, our planners barely have the feel of the local conditions, hopes, aspiration and priorities of the local people. This has badly affected the allocation and distribution of wealth and resources, causing skewed pattern of development across the country.

A few of the major causes for the lack of rapid development in Bangladesh are:

- Misdirected fixation of national priorities for economic development because of external influence;
- Negligence in ensuring availability of raw material, technical know-how and compatible management exposure;
- Inadequate development of infrastructure to handle the growing need for resource mobilisation, its storage and its delivery;
- Absence of appropriate and efficient managerial organisation to implement development plan. Rules made decades ago are still prevalent in the process of dispensation;
- Inefficient distribution of resources, which is characterised by red tape, parochialism and political motivation;
- Inability to disaggregate goal into investment projects due to constraints imposed by the donor countries;
- Insularity in the world market and abnormal fluctuation of dollar value vis-a-vis taka;
- Inability to comprehend the necessity of coordination between and among ministries. Inter-ministerial rivalry also cuts across the implementation of development plan;

- Malafide political motivation and leadership arrogance to hold on to power even by hook or by crook, patronisation of cronyism and allocation priority of party security over state security, use of formal state organisations for informal assignments, and partisan approach towards distribution have kept back the caravan of development by miles.

Development, which includes redistribution of power and resources to bring about substantial change in environment, is beset with enormous problems, which warrant participation of the nation. The age-old colonial rules, which have been in practice so long, are unresponsiveness and exploitative. Methods need to be evolved to ensure responsiveness and variation to mobilise people around development.

Planning of development should not be left to the whims of the politicians who, without adequate knowledge of means and modes of total development, have made a mess of it. They are inclined to keep their own council regardless of their ability to comprehend the enormity of the subject. At times, they are guided by the vagueness and vanity of their political strength and a superficial knowledge of national priorities.

Z.A. Khan is a former Director General of Bangladesh Institute of International and Strategic Studies.

Saving our lifelines

Civil society and NGOs became more vocal and active. Government officials and representatives in Parliament, including the prime minister, responded positively and instructed concerned authorities to do what was necessary to save the rivers.

M. SHAH ALAM

RIVERS are the lifelines of Bangladesh. Of the few riverine countries in the world, Bangladesh figures prominently. The rivers, their tributaries, and the innumerable canals they feed, form a well-knit but complex network of arteries that support the ecology and life-system of Bangladesh. Our lifestyle, culture and livelihood are the outcome of our river system. Any gross violation that blocks the arteries of this system shakes menacingly the lives of its millions.

Geographically, almost all of our rivers originate in the upper neighbouring riparian countries, thus seriously constraining our options to take care of these rivers. Good neighbourliness, diplomatic negotiations, international laws to plead our

case, an integrated regional river basin approach for the use and management of our water resources, and national unity to skilfully employ our limited options, are the prime factors to preserve the natural flow of our rivers and to use them for the benefit of all co-riparians.

However, management of rivers and their waters inside the country is equally important, and this poses the most formidable task for Bangladesh now. Encroachment on and grabbing of the rivers, and the pollution of river waters have increased alarmingly. The Daily Star and Channel i launched a vigorous movement a few months back to alert the nation and authorities to the dangerous consequences that we face if no effective steps are taken. Although they focused on the four rivers around Dhaka, namely, Buriganga, Balu, Turag and Shitalaksha,

this can be true of all of our country's rivers, especially those around our cities and towns.

The rivers have been choked by grabbers and polluted by industrial discharges, as depicted in grim print and electronic media reports and pictorials, indicating dire consequences for greater Dhaka. In a series of reports, administrative, legal, land, river and environmental issues were asked the authorities to a) make credible surveys of the rivers; b) identify their original boundaries; c) recover the grabbed lands; and d) take effective measures to protect the rivers. The court also asked them to submit reports on the implementation of these directives. The court passed similar directives in 2000 on a petition by the Bangladesh Environmental Lawyers' Association (BELA), which have not been complied with. This time, the court's determination and the government's response appeared encouraging.

One big problem Bangladesh faces is maintaining what has been achieved, or pursuing the solution of a problem to its final end. Even NGOs and civil society, which launch movements, the judiciary which is proactive, and government functionaries who seemingly respond positively do not continue to protect and

court directives have been flouted by the government, and by grabbers and polluters, how authorities have condoned the violations of the country's laws, and how muscle power has prevailed often over the power of law.

One positive development in the matter has been the higher judiciary's role and pro bono advocacy. The High Court Division's latest directives (June 25) have asked the authorities to a) make credible surveys of the rivers; b) identify their original boundaries; c) recover the grabbed lands; and d) take effective measures to protect the rivers. The court also asked them to submit reports on the implementation of these directives. The court passed similar directives in 2000 on a petition by the Bangladesh Environmental Lawyers' Association (BELA), which have not been complied with. This time, the court's determination and the government's response appeared encouraging.

One big problem Bangladesh faces is maintaining what has been achieved, or pursuing the solution of a problem to its final end. Even NGOs and civil society, which launch movements, the judiciary which is proactive, and government functionaries who seemingly respond positively do not continue to protect and

After last June's media movement and its accompanying response, we expect that the authorities will do some strategic planning to sustain our lifelines. What everyone concerned, including the court and the parliamentary standing committee, suggested is that proper surveys be made to find out the exact boundaries of the rivers, demarcate them, and rescue them from the clutches of the grabbers and polluters.

Over the years, land records and documents of ownership may have gone sea changes; illegal acts may have been legalised. However, the government has options. To make the rivers flow like rivers, the government has the right and duty to acquire land that may have been illegally acquired, and later made "legal." Public interest should reign supreme in all expedencies and controversies.

The present laws (The Canals Act, 1864; The Irrigation Act, 1876; Embankment and Drainage Act, 1952; Ground Water Management Ordinance, 1985; Water Resources Planning Act, 1992; Bangladesh Water Development Board Act, 2000; The Playground, Open Spaces, Gardens and Water Bodies Conservation Act, 2000, and others) and institutions of the country are frustratingly insufficient to protect and

preserve our rivers and other water bodies. Even the laws we have are not observed and enforced. What we need is a more comprehensive law and a credible institutional enforcement mechanism.

The time has come to speak out for a strong domestic river or water-courses law -- an all-embracing parliamentary act to 1) rescue our rivers and restore their natural flow by regaining lost land and dredging; 2) make grabbing impossible by constructing embankments and pucca roads by the riversides; 3) coordinate the activities of related government agencies; 4) take effective measures to keep rivers pollution free; 5) make the violation of the law both a criminal and a civil liability; and 6) form a strong river body, i.e. a river commission, to implement the law.

There is now sufficient amount of awareness among the people and the government about the dire consequences of neglecting the issue. This must lead to a sense of compulsion to establish the necessary law and institution to protect and preserve our rivers and other water bodies, especially in and around our major cities.

Dr. M. Shah Alam is Professor of Law, University of