

Fixing Agricultural Research Priorities

by Dr Mushtaq Ahmed

In the development continuum, we should view our agriculture in a long-term perspective... identifying potential crops, other than rice, and adopting related policies for the long-term development of agriculture.

AGRICULTURE is vital to our national economy. It contributes about 32 per cent of the GDP. The bulk of our population is rural and over two thirds of their employment is accounted for by agricultural activities alone. Thus improving their welfare and that of the nation at large means developing agriculture.

So far, agricultural growth has remained rather erratic. Country's food-grain remained at around 2.3 million tons for many years now. Question arises as to why the agricultural sector failed to respond or match the massive initiatives geared at catalyzing a sustained growth for such a long time.

Causes of the past failure may not be far to seek. Perhaps the most overlooked reason for the poor performance of agriculture was the inappropriate macroeconomic and sectoral policies and lack of concomitant institutional capacity for policy planning, analysis, monitoring and evaluation.

With rise in income, the nature of food consumption is usually affected along with its associated substitution effect. According to some recent empirical studies carried out in the country it is found that only a third of the budget is spent on rice. This is substantially different from the old estimates. This is consistent with expectation that with the rise in income, the demand for higher valued products such as dairy, edible oil, pulses, fruits and vegetables would rise. Consequently, the price of rice has increased by only 4 per cent per annum, whereas, the price of commodities such as eggs, meat, fish, pulses, edible oil, fruits and other agricultural products showed three times as much increase.

crops, other than rice, and related policies for the long term development of agriculture.

Wheat acreage has been estimated at 1.4m acres (some 17.7% of non-rice crop area) and production is estimated at 1.6m tons. In terms of acreage this may well mean that we have reached a plateau in acreage expansion and any further expansion should come from efforts directed at increasing yield. Presently 85 per cent of the wheat is of Kanchan variety. Previously, it was Sonalika which dominated the farmers' fields. A catastrophe can be wrought by planting a homogeneously single genotype due to a disease or other virus epidemic such as the leaf rust. There are varieties developed and screened earlier such as Aghrani, Probhati and Akbar. Farmers are slow to adopt these latter varieties mainly because the new cultivars do not possess the qualities sought by the farmers. New varieties are needed in the pipeline which would have the robustness and other attributes that the farmers/consumers seek.

In the recent years irrigation is not growing as fast as it did before. The share of surface water irrigation has come down from nearly 50 per cent of irrigated area to below 30 per cent. DTW irrigation growth has nose dived with the withdrawal of subsidy. It is found that both DTW sinking and operation is uneconomical without subsidy. It is also known that excessive ground water extraction is causing imbalance not only in aquifer recharge but also causing salinity and may be related to toxicity problems.

Status of soil has deteriorated alarmingly in the country. The earlier trend towards monoculture has further compounded the declining soil fertility situation. One cereal crop after another has created an imbalance in the soil nutrient replenishment cycle. Diversity in crops were lost in the process. It is alleged that there is an imbalance in chemical fertilizer application in Bangladesh compared to West Bengal in India, manifesting in different soil/nutrient abnormalities.

This imbalance in chemical fertilizer application has also risen from the unfavourable fertilizer to paddy price ratio. This ratio remained below one for urea most of the time but was over one for other fertilizer types for at least the past six years. Urea use at present trend is expected to grow at current

prices by 9.9 per cent annually. Deterioration in soil health is accentuated by acute fuel-wood crisis in the rural areas, leading the farmers to retrieve as much as they can of the crop residue leaving little to go into soil. Whereas the efficiency of chemical fertilizer use is dependent on bio-matter content of the soil. No wonder that chemical fertilizer is also showing a declining efficiency/productivity in this degenerated soil — down to 54 per cent of what it was in 1986. Making farmers aware of the benefits of bio-fertilizer should be important component of future soil fertility management programme.

Potato farmers are alleged to be using more fertilizer than recommended levels — almost three times more urea and two and a half times more phosphate and potash in their fields over and above the recommended doses in the country. Incremental fertilizer application is not yielding additional benefit to the farmers. If the farmers were using the right dose, the saving to the farmers themselves would have been significant. To the government the savings in terms of subsidy on this quantity of fertilizer would be staggering.

Establishment of large number of cold-storage and maintaining good supply of planting materials has been important catalyst for potato growth. It is growing at a phenomenal rate in the country with present level — an all time high at 2.6m tons. The TPS technology is being vigorously pushed, which is expected to reduce potato production cost.

Vegetables and fruits occupy roughly 10 per cent of the non-rice crop area or 5.6 lac acres with estimated production at 2.3 million tons. Vegetable production has been growing steadily for some time. Most of the growth in vegetable and potato are attributed to acreage increases. Dhaka city alone has some 50 tons throughout arriving daily from city conurbation and contiguous areas. In the west, central and the north west of Bangladesh due to non suitability of growing HYV rice on the relatively higher aus lands farmers are growing banana and other vegetables.

These growers are now important players in the overall vegetable production, contributing close to a third of total marketed quantity in the country.

Vegetable being a labour-intensive crop also merit attention as it will create greater employment per acre than many other crops and thereby has the potential to raise farm income and reduce poverty. We are already exporting some 24 million dollars worth, or roughly 30 thousand tons of vegetables mainly to the Middle-Eastern countries. There is great demand for our fruits and vegetables as they are grown under organic condition. Irrespective of the projections made in the FFYP, with little effort the export of vegetables can be increased substantially.

Heavy pesticide and other chemical use is reported for vegetable production in the country. The trace elements of many of these systemic drugs/chemicals are found to be harmful to human and animals. Meeting phytosanitary (FAO Code) conditions will be important for export purposes. There are other bottlenecks such as lack of marketing opportunities, absence of chill houses at collection and export points, difficulty in transportation including difficulty with air freight and associated high costs and no grading facilities. No systematic study of the same has been undertaken either. We need to undertake research in these areas, particularly on marketing — which is reported to be significantly constraining farm production.

Oil crops are important component of our crop mix. Rape seed and mustard are grown most widely in the country. It is found that Tori-7 accounts for 80 per cent of the oilseed crop acreage the yield being around 350-kg per acre. The area under different oil crops is around 13.7 lac acres. A few improved varieties have been released. Farm level adoption is negligible as these cultivars did not help in gaining edge in financial competitiveness, yield advantage or in shortening crop duration. These varieties are also usually non-responsive to high doses of fertilizer and irrigation. Naturally,

they failed to be incorporated into the rice-dominated cropping system.

Coconut can play a pivotal role in meeting substantial portion of our domestic edible oil requirement saving millions in forex. Due to pest, disease and poor husbandry a great quantity of coconut is wasted in Sri Lanka, south India and in many Caribbean countries. Coconut has multiple uses. Not only oil from copra can be obtained for edible purposes, additionally, the copra-meal can bridge the tremendous shortage that we have for cattle feed.

There are other industries that can be based on coconut fibre such as the coir, mat and carpet industry. Philippines and other countries are exporting bottled fresh coconut water and other coconut products worldwide and it can be an element in our effort to diversify our export-base as well. We need a re-thinking and redirection of our attention with regard to oilseeds research policy, planning and marketing actual research.

Pulse production is on the decline in the country. It covers some 20 per cent of non-rice crop acreage and grown mostly on the marginal lands totalling 17 lac acres. Being a low input crop also means productivity is low at 320-kg per acre. Pulse import, mainly from India, has been growing steadily as our production is falling despite increases in the nominal prices. Pulse being leguminous crop, through its rhizospheric activities at the root modulation can help reduced use of nitrogenous fertilizer and in restoring soil health. Being a short duration crop its cultivation during fallow periods as inter crop, relay and intermediate crop holds great prospect. Some prospective new varieties have been released but their spread on the farmers field has been low. The present research and development efforts are rather directionless and stymied.

Maize is considered to be a potentially most prospective crop which due to distressful condition of fuel, fodder and feed supply in rural Bangladesh can be a manna from the heaven. Having a large biomass it can be important component in meeting the feed, fuel

and fodder needs. We need to undertake socio-economic research on maize particularly on its multiple uses and other post-production and marketing constraints. The government's diversification programme should emphasize the latter.

During 1994/95, the country imported some ten thousand tons of different spices spending 12 million US dollars. Bangladesh has great scope for the development of spices and condiments in the country. The recent focus in this area by establishment of a spice research center is laudable. From the very beginning proper scientific manpower placement for research and development is important otherwise we shall have buildings but no development.

Sugarcane acreage, production and yield are showing negative growth. The yield has declined to 24.5 tons per acre with sugar recovery rate incredibly low. An acre of sugarcane would make about half a ton of processed sugar. Whereas our recorded sugar import into the country has been 70 tons valued at US dollar 147 million. These all are important causes of our current account imbalance.

Nearly 9.6 lac metric tons of jute on 1.2 million acres of land is produced in the country. Depending on aus to jute price ratio the acreage of jute varies between 1 and 1.5 million acres. Due to acute marketing problem and associated price stabilization problem, the jute growers face acute hardship. Demand for jute is basically a derived demand. As a result, the performance of the jute processing sector both at home and abroad determine its demand and price. Diversifying its use in the face of competition from its natural and synthetic substitutes are important components for its survival as a viable cash crop. Interestingly, acute fuel wood crisis in the rural areas has indirectly created demand for jute-sticks for fuel and fencing purposes.

Tea being a plantation crop has been under more organized commercial management. But unfortunately the plants are old and their productivity has gone down. But due to international demand and price escalation it

is still an important activity and export commodity, earning USD 32 million. It is important that our emphasis on this plantation crop be focused to make it more productive so that it remains competitive.

Post-harvest and marketing constraints have to be addressed as much as the production constraints in a successful planning for the overall development of agriculture. Insufficient or dated market information, underdeveloped marketing skills coupled with the poor quality of market entry impeded some ten thousand tons of different spices spending 12 million US dollars. Bangladesh has great scope for the development of spices and condiments in the country. The recent focus in this area by establishment of a spice research center is laudable. From the very beginning proper scientific manpower placement for research and development is important otherwise we shall have buildings but no development.

Sugarcane acreage, production and yield are showing negative growth. The yield has declined to 24.5 tons per acre with sugar recovery rate incredibly low. An acre of sugarcane would make about half a ton of processed sugar. Whereas our recorded sugar import into the country has been 70 tons valued at US dollar 147 million. These all are important causes of our current account imbalance.

Nearly 9.6 lac metric tons of jute on 1.2 million acres of land is produced in the country. Depending on aus to jute price ratio the acreage of jute varies between 1 and 1.5 million acres. Due to acute marketing problem and associated price stabilization problem, the jute growers face acute hardship. Demand for jute is basically a derived demand. As a result, the performance of the jute processing sector both at home and abroad determine its demand and price. Diversifying its use in the face of competition from its natural and synthetic substitutes are important components for its survival as a viable cash crop. Interestingly, acute fuel wood crisis in the rural areas has indirectly created demand for jute-sticks for fuel and fencing purposes.

cient utilization of scarce resources.

There is serious shortage of quality seed in the country. For augmenting yield and for narrowing the yield gap, supply of quality/certified seed is important. Research, seed multiplication and distribution are important in this regard. Introduction of national seed policy and creation of the seed wing at the ministry of agriculture are steps in the right direction for developing domestic seed industry. The objective should be to make seed production and marketing more vibrant rather than create new strata of agencies, which impede rather than facilitate growth.

Agricultural R&D/E system is seriously flawed. This situation is further complicated by lack of research leadership at the research institutes. There are layers of institutions which are lackadaisical with their professional resource poorly managed and irrationally distributed. Some of these may be deliberate.

Agriculture is multifaceted so there are many other important areas which need to be addressed by the research system and for long-term agricultural policy development. Mechanization is one such element. The short turn around time and peak season labour bottleneck has now necessitated that we go for selective mechanization. This will be not only for meeting draft power shortage but for other activities such as threshing. To have a land policy is important as right before our eyes the productive lands are being fuddled-up for industries, brick-fields and other purposes like homestead. The competition for land use during the rabi season becomes acute.

What crops actually give us the greatest benefit not only in terms of saving scarce foreign exchange but also in terms of employment and domestic income effect should be important in our policy consideration. As such our land policy should take into account all these factors for optimum crop mix. Additionally, to maintain productivity and high production levels, farmers' incentive has to be maintained. Without assuring a profitable return to the farmers, sustaining the development impetus is not possible.

The writer is Chief Scientific Officer and Head, Agricultural Economics Division, Bangladesh Agricultural Research Institute

Metropolitan

Local Government Engineering Directorate
Pataukhali
Corrigendum to Tender Notice
No. 15/97-98

In the Tender Notice published under DFP No. 29022-22/12 in this paper on 28-12-97, the date of receiving tender (in the 7th line of the text) was inadvertently missing, which should be read as '06-01-98'.

GD-02

Biman
BANGLADESH AIRLINES

ZIA INTERNATIONAL AIRPORT, KURMITOLA, DHAKA. PHONES: 894771-9, 894730-4, CABLE: AIRBANGLA, TLX: 642649 DABG BJ

Ref. No: DACPF/Int'l Tender/005/97 Dated: 24-12-1997

CORRIGENDUM OF INT'L TENDER

THIS REFERS TO OUR INT'L TENDER NOTICE NO. DACPF/INT'L TENDER/005/97 DATED 17-11-1997 PUBLISHED FOR PROCUREMENT OF FUEL BOWSER QTY. 01EA

ALL PARTICIPANTS ARE REQUESTED TO PLEASE NOTE THE FOLLOWING AMENDMENT:-

01. COUNTRY OF ORIGIN WILL BE USA, CANADA, EUROPEAN UNION AND JAPAN ORIGIN WITH BUILD UP CONDITION.

ALL OTHER TERMS AND CONDITIONS OF THE TENDER SCHEDULE WILL REMAIN UNCHANGED.

MOHD. ABDUS SALAM
DY. GENERAL MANAGER
PURCHASE (ACTING)

GD-01

Gregorian Assoc final tournament held

The final of the Teachers Memorial Gregorian Association Tournament organised by The Gregorian Association and sponsored by Nitel Motors was held recently at the St. Gregory's High School, says a press release.

Grn. Syed Murghub Mursheed, Secretary, Rural Development and Co-operatives, was the chief guest and distributed prizes among the winners. Batch 92 became champion while batch 93 was Runner-up.

JCD founding anniversary today

Opposition BNP's student front Jatiyatadabi Chhatra Dal (JCD) has drawn up an elaborate programme to celebrate its 19th founding anniversary today, reports UNB.

The programmes include hoisting of national flag at the party central office at 6 am and placing of wreaths at the graveyard of late President Ziaur Rahman at 9 am on the day.

On the occasion, a discussion meeting will be held on Saturday at Diploma Engineers' Institute at 10 am where BNP Chairperson Begum Khaleda Zia will attend as chief guest.

JCD president Shaheed Uddin Chowdhury Anie and general secretary Habib-un-Nabi Soheli asked the JCD leaders and workers throughout the country to observe the day in a befitting manner.

Govt portion of salary cheques for pvt schools sent to banks

The government portion of salary cheques for the teachers and employees of non-government educational institutions for the month of last November have been handed over to the four national banks, reports UNB.

The cheques for the teachers and employees of the non-government schools, colleges, madrasas, SSC vocational and FSC business administration institutions were sent to the head offices of Janata, Agrani, Rupali and Sonali banks on Monday.

The heads of the respective educational institutions have been requested to collect the money from the branches of the concerned bank by January 21 next, according to an official handout.

It also said the teachers-employees who failed to collect their money during the period June-October, 1997, will also be able to collect the money within the period.

What's on today

Poet Jasimuddin's birth anniversary: The 95th birth anniversary of poet Jasimuddin will be observed today. To mark the occasion, children's recitation will be held. Venue: Kendriya Kanchi Kancha auditorium. Time : 9.30 am.

Biggan Chetona Parishad: The second founding anniversary of the Parishad will be held. Venue: 51 Aziz Market (3rd floor). Time 9.30 am.

Rotary Club of Dhanmondi: The 550th regular weekly meeting of the Rotary Club of Dhanmondi will be held today. Venue: Dhaka Club Upstairs Family Lounge. Time : 5:30 pm.

Rotary Club of Jahangirnagar Dhaka: The regular weekly meeting and board meeting of Rotary Club of Jahangirnagar Dhaka will be held. Venue: 126/1 Elephant Road, Dhaka. Time: 4:15 pm.

Iftar, Zikir Mahfil: The Iftar and monthly Zikir Mahfil will be held. Venue: Khan Kaye Toyajia, 27, Siddheshwari Road in the city.

Obituary

Syeda Rahima Khamam, mother of Pir Habibur Rahman, organising secretary of Dhaka Reporters' Unity, died at 11:20 pm on Tuesday at her Sunamganj residence. She was 70, says a press release.

Her namaj-e-janaza was held at Court Mosque in Sunamganj after Asr prayers yesterday and was buried at Maizbari family graveyard.

Weather

Weather to remain dry

Weather is likely to remain mainly dry with temporary partly cloudy sky over the country in the next 12 hours till 6 pm today, reports UNB.

Met Office says slight fall in night temperature is expected across the country.

Weathermen predicted little change in the subsequent two days, but expect appreciable fall in night temperature after the next five days.

Country's highest temperature yesterday was recorded 29.3 degree Celsius at Cox's Bazar and the lowest 12.2 degrees at Srirangal.

Sun sets today at 5:23 pm and rises tomorrow at 6:42 am.

Maximum and minimum temperatures and humidity recorded in some major cities and towns yesterday were:

City/Town	Temperature in Celsius		Humidity in Percentage	
	Max	Min	Morning	Evening
Dhaka	26.2	17.0	77	73
Chittagong	24.0	13.6	69	63
Rajshahi	24.5	15.9	88	79
Khulna	26.6	14.6	88	80
Barisal	26.8	13.6	90	96
Sylhet	26.2	13.5	85	76
Cox's Bazar	29.3	13.8	75	70

Fashion Gallery inauguration Jan 4
By Staff Correspondent

The scheduled inauguration of a Fashion Gallery in the city would now be held on January 4 instead of today, says a press release.

Organizers — Kay Kraft, Anjan's and OG — said that musical band warfaze would formally open the gallery at 3 pm on January 4.

EMPLOYMENT OPPORTUNITY

A foreign aided development project is looking for a SR. ASST MAINTENANCE SPECIALIST to be based in Dhaka.

Duties include to provide assistance in implementation of a nationwide infrastructure maintenance programme with an annual budget of about 100 crore Taka in the areas of feasibility of proposed schemes, checking plans and estimates, monitoring quality, physical and financial progress and compile monthly reports.

The specialist is further expected to develop system and procedure for data collection from the field and compile and update the PC based database containing the inventory related to the physical infrastructure.

The candidate is required to have minimum a B. Sc in Civil Engineering from a recognized university and minimum 4 years experience from implementation and planning of rural infrastructure maintenance work. The candidate is further required to have a good knowledge of English and PC-based word processing, spread sheets and database programmes.

Only candidates complying with above minimum requirements will be shortlisted and called for an interview.

Interested candidates may send their application including a detailed CV together with a recent passport sized photograph to The Advertiser, GPO 4185, Dhaka 1000 latest 10 days from appearance of this advertisement.

FEMALE CANDIDATES ARE ENCOURAGED TO APPLY

Happy New Year

WHAT'S GOING ON

1,20,000+

Free Copies of Bangladesh Yellow Pages!

To get your Free Copy of Bangladesh Yellow Pages please send us an application in your Business Letter Head Pad mentioning your business type along with a Bank Draft or Pay Order of Tk. 80/= for Dhaka & Chittagong City and Tk. 100/= for other Cities in Bangladesh as Postal & Documentation Charges.

It may please be noted that the regular selling price per copy is Tk. 500/= only.

This Program will continue From 01-01-98 till 15-01-98.

YELLOW PAGES (PVT.) LTD.
Sharif Mansion (6th Floor),
56-57 Motijheel C/A, Dhaka-1000, Bangladesh.
Tel : 9563428, 9557755, Fax : 880-2-9558783

Software Professionals / Opportunities in U.S.A

Client is a worldwide provider of information technology services for legacy, client/server and internet applications, development & maintenance, reengineering services, Year 2000 conversions and packaged implementations.

Seeking highly motivated Programmer/Analysts and Software Engineers. Qualified applicants should have demonstrated technical proficiency in one or more of the following environments:

IBM Mainframe, AS/400, HP3000, Unisys A-Series, UNIX Internals. Languages: COBOL, ASSEMBLER, RPG/400, ALGOL, C/C++, VB, PB, Unifac. Applications: SAP, PeopleSoft (HRMS, Financials, Manufacturing) and Oracle (Developer 2000, Financials, Manufacturing, HR).

Knowledge of RDBMS a must.

We offer competitive salaries in the US and a comprehensive benefit package including travel to US (with spouse) and immigration.

Send resume in your own handwriting to:

BanAm Trade Limited
House # 15, 2nd Floor
Road # 8, Sector 3
Uttara, Dhaka 1230

BanAm Trade Limited
SYSTEMS RESOURCE PARTNERS