

# 'Build Bangladesh as a land of opportunities'

Dr. R.A. Mashelkar, National Research Professor, President of Global Research Alliance and Chairman of India's National Innovation Foundation, talks with Syed Mansur Hashim and A.B.M. Shamsud Doza of The Daily Star about prospects of University-Industry Collaboration.

THE Daily Star (TDS): Why is University Industry Collaboration (UIC) a relevant idea for Bangladesh?

R.A. Mashelkar (RAM): The fundamental issue that confronts all nations today is how research can convert money into knowledge and knowledge into money. We keep focusing on the first.

The government gives us money, and scientists keep turning it into knowledge in the form of papers and patent. More important is the second aspect -- converting knowledge into money -- leading to both economic and social development. For doing that, one has to complete that chain of education, research and innovation. Because education actually disseminates known knowledge, research creates new knowledge and innovation converts that new knowledge into wealth. Many universities focus on the first, not on the second and least on the third.

Obviously universities are on the supply side because bright ideas, bright intellectual assets get created in the universities. Industries should be on the demand side; putting demand to this knowledge so they can be converted into marketable products, because it is not possible to create wealth out of just any form of knowledge. So these partnerships become extremely important.

I feel Bangladesh has great universities and very bright students. It is a question of utilising their potential in terms of connecting them with industrial enterprises, and for the industrial enterprises to create wealth out of those ideas.

TDS: What would be the starting point of UIC in Bangladesh?

RAM: In terms of agriculture, Bangladesh has done very well. The fact that you are able to feed 160 million people is really admirable. Of course, along with the issue of food security, there is also the issue of food safety; issues of nutrition that needs to be dealt with. There are other sectors of the industry, for example health or pharmaceutical industry, which are also growing.

In exporting garments, Bangladesh has done well too. There is a scope for looking at new technology not only in terms of productivity but also in creating special products.

And then you have the other sectors of the economy, where again knowledge can be used in order to create enhanced values.

I also find an emergence of information technology. Recently, we were at a software park in Bangladesh where we met many bright youths with startup companies; they were growing at the rate of 15-20% which is wonderful. So, I would say that the enterprise of young people is mushrooming here.

We need to provide a support system. For example, the Bangladesh government has created provisions for taking equity in startup companies. Now we can go from InfoTech to Biotech and move on to other sectors.

TDS: What should be the process of connecting universities and industries?

RAM: First, one has to realise that although knowledge creates wealth, not all knowledge creates it. It is only monetisable knowledge that creates wealth. That means one needs to think of intellectual property rights. For example, you cannot sell knowledge, which does not belong to you. It means that we have to have the patent literacy.

Now what does patent literacy mean? It means reading a patent and writing a patent. You read a patent in such a way so as so that you can bypass it and create your own patent. You write a patent so that no one can bypass it. So, how do you develop that?

Unfortunately, I find that on the level of literacy on patenting, Bangladesh has miles to go. Therefore one of the first things that I would do is train the students graduating from schools. They cannot come out patent illiterate because they are entering a knowledge economy. So train them in understanding patent, find out if their research is patentable and then make a techno-commercial evaluation of the patents, and so on.

The government has a huge role to play since it is just not the university side, you have to make the Bangladesh patent office talk, have highly trained patent examiners who are able to read complex patents, because these days even bio-technology patents are a thousand pages.

We have to have smart intellectual property lawyers. It is not just scientists who can make the intellectual property, if they are not supported by systems, you would not be able to create them.

Second, in terms of research, one should be solving



Dr. R.A. Mashelkar

problems that need to be solved. And that is what the industries understand very well, because they are closer to the market. So how do we make the university research system more responsive to the problems that need to be solved? Number three is the industrial benefit; because of the work that they are doing they would get a strong scientific base. So it is actually a win-win situation.

And third is where universities only strive to get excellence, where they have relevance. And relevance is directly linked to growth and development. So directing university research so that industrial research

prosper in the country is a great idea.

The fourth point is that any idea is like a baby, you need to incubate it. The right environment is needed to convert the idea into a product. So you require special understanding and that is where commercialisation becomes extremely important.

Beyond that when you have new ideas and you support them, you also take risks and require risk-financing. If you are taking such a risk, you need some "ad" venture capital. That financing is missing today, so how do we create that?

And while you are doing all these, we also need support systems -- institutional systems and structure which support innovation. Not everything lies in the research stage. There is a whole eco-system. Creation of a new idea is a single man's job, but to convert it into a sellable idea requires a lot of people -- from design to manufacturing to sales to marketing. This orchestra needs to work properly. Therefore, we need to see how we can create this ecosystem.

TDS: How should the pedagogy of university be changed to suit the creative economy?

RAM: I think there are two ways. Innovation is about doing things differently. Teaching and learning procedures are undergoing a dramatic change around the world. Take digital learning and what do you see is infinite possibility of learning in a very different way.

On YouTube you will find thousands of tutorials done by Khan Academy. So students can master the concepts before coming to class, the entire pedagogy of learning has to change. Of course physical learning has its place. It is a blend of digital and physical learning that we have to have.

The new generation which is coming up is impatient; they are aspirant and they have a better understanding of the good things in life, thanks to communication. To meet their expectations and their demands, and to recognise the fact that they have access to knowledge which teachers do not, universities need to keep up with it. This transformation, the sooner it is done, the better.

Flexibility and freedom are fundamental to the university system. Ability to think free and act free are what makes the university system what it is. That should not be taken away. But autonomy has to be accompanied with accountability. So each country with regard to its own history and culture; have to develop its own system.

In the early years, it was an agriculture economy. Then came the era of manufacturing, then service or knowledge economy and now it is creative economy. In this transition, being in agriculture means mainly labour, but as you go to creative economy it becomes about the mind. That transformation is universal and I am sure it is happening in Bangladesh too.

TDS: In terms of regulatory framework -- which comes first? How important is the government's role? Is it the government or the industries who take the initiative for this transformation?

RAM: The government is the most important stakeholder -- that is where the regulation becomes important. Those structures have to be put in place.

I often see people in India lamenting for brain-drain. I used to tell them that the US is the land of opportunities and India is the land of ideas. If India becomes a land of opportunity then ideas will stay here. I think this is also true for Bangladesh. Build Bangladesh as a land of opportunities, then you will, automatically, find robust creativity and pool of talents.

There is a law that tells that 1% carry 90% intellectual capacity of the population. It means that if you lose that 1% you lose 90%.

Three things matter: Talent, technology and trust. Bangladesh has talent as elsewhere in the world. But it is lagging behind in latest technology and trusted institutions, where government needs to play the key role.



STAR

## Jatrabari-Gulistan fly-over

HUSSAIN IMAM

LET us hope that the construction work of Jatrabari-Gulistan flyover is completed soon. Nobody is sure when it is going to end, and with that mark the end of public suffering of unbelievable magnitude.

The importance of the flyover, the biggest so far undertaken in the country, cannot be over-emphasised. It is expected to play a vital role in ensuring free flow of traffic to and from Dhaka city.

The fly-over will surely be considered as one of the significant contributions of the present government towards easing the unbearable traffic congestion at the entrance of the city.

But does that mean that the government machinery which is responsible for implementation of the project will remain totally indifferent towards making an alternate arrangement for the reasonably safe and easy movement of traffic through the area by by-passing the flyover from either side?

Does it mean that they will keep on taking a 'couldn't care less' attitude towards the safety and comfort of the people traveling by road over this area? It is probably high time we got some acceptable answers to these questions from the authorities concerned.

The so called by-passes on either side of the flyover may be called anything but roads fit for traffic movement. To put it politely, they are badly damaged, dilapidated and plagued with innumerable potholes bad enough to endanger safety of vehicles, not to mention the congestion, chaos, time loss and physical as well as mental suffering of the passengers.

Jatrabari crossing, Jatrabari-Gulistan runway (!) to be precise, is nowadays possibly the biggest hurdle one has to overcome if one has to make a journey by road through that area. The situation is worse when the roads are inundated by rainfall, leaving everything open for anybody to get trapped with his vehicle on the damaged roads.

Only the other day I had the fortune or misfortune of going through such a scenario. I was coming from

Brahmanbaria in a car. It took me 7 hours from Brahmanbaria to Gulistan -- 4 hours from Brahmanbaria to Demra Bridge, 1 hour from Demra Bridge to Jatrabari crossing and another 2 hours from Jatrabari crossing to Gulistan.

As the Jatrabari road had gone under water because of a little bit of rain, it took no time after crossing the Jatrabari traffic signal for my car to get trapped in one of the pot-holes for at least fifteen minutes before some helpful passers-by came and rescued me. And don't make a mistake. This is not a rare phenomenon. It is almost a daily happening.

Who is to be blamed for this? Is it not because of sheer negligence of the authority concerned -- be it the City Corporation, Roads and Highway Dept. or the construction company -- that the people have to bear the agony of such a mess for day after day, month after month, year after year?

As a seafarer, I had the opportunity of visiting many big cities, but nowhere have I ever seen such a mess in traffic management. Nowhere have I seen so much neglect or indifference to public safety and comfort.

If the roads on either side of the fly-over could be kept smooth by carrying out patch-repair of the damaged areas and filling the pot-holes with bricks and stones on constant basis by an emergency damage repair team, and if some sort of traffic discipline could be maintained on the road by the traffic police, the scenario could have been altogether different.

The ruling party has suffered defeat in the city corporation elections of Sylhet, Rajshahi, Khulna and Barisal. The defeat may be due to many reasons, but can it be totally ruled out that their indifference to the day to day problems of the common people, especially of the urban population, played no less role in that debacle?

The government will be well advised to take a note of it and do the needful on urgent basis if they want to prove better in the upcoming elections.

The writer is a retired merchant navy officer. Email: himam55@yahoo.co.uk

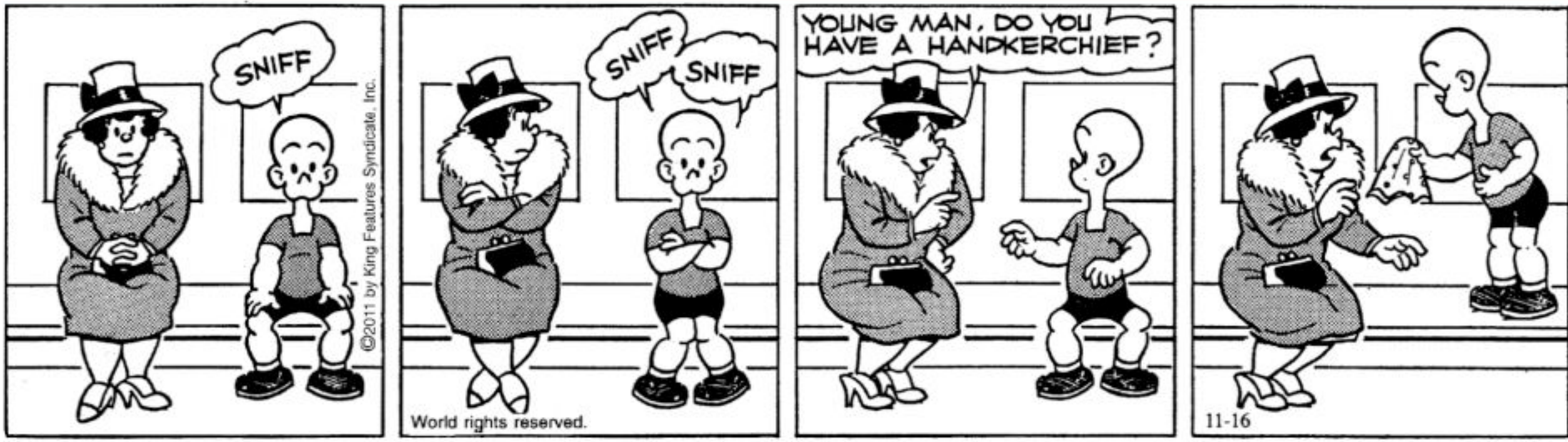
### BEETLE BAILY

by Mort Walker



### HENRY

by Don Trachte



ACROSS

1 Kills, slangily

5 Make up your mind

8 Padlock, fastener

12 Polio vaccine pioneer

13 Born

14 Sheltered, at sea

15 Reacted to sun glare

17 Hot dog holder

18 Sugar suffix

19 Charged bit

20 Chin indentation

21 Kreskin's claim

22 Montana or Namath

23 Baghdad resident

26 Feast

30 Frill for Fonteyn

31 Bear hair

32 Radius neighbor

33 In need of laundering

35 Bishop's headress

36 Present

37 Corral

38 Engine

41 Fish's flipper

42 Fire residue

45 Pinnacle

46 Hotel chair

48 Enticement

49 Ostrich's kin

50 A bit too tight

51 Doctrines

52 "Goshi"

53 Skillet

DOWN

1 -- buco

2 Webpage list, often Python's opener

3 Chimney channel

4 Tackle the slopes

5 Winning flower

6 Hammer-head part

7 Slugger

8 Buffoon

9 Lotion additive

10 Ego

11 Hide

16 Unless, in law

20 Opposed

21 They occur in March and September

22 Pickle container

23 "Monty Python" opener

24 Trench

25 --

26 Unopened

27 Last: Abbr.

28 Away from

29 WSW

31 Only a small

34 Neither mate

35 Carte

37 Fit of resentment

38 Neighbor of Niger

39 Piece of work

40 Expression

41 Notoriety

42 Actress Paquin

43 Dazzle

44 Cronos

46 Journey segment

47 AOL, for instance

Solution time: 21 mins.

EGG BERT HINDS  
GARD OAR BIEG  
OOZE BRO PITTI  
SWARD SOUP  
RAIG PSYCHO  
LADY OUE AID LOW  
AGOD TUB GUSE  
KILDS MAILLETS  
ENTRAP YOU  
OTIC SCUBUB  
TUTTI TOTO  
IRON EMU YEAR  
PLOD SAX SHE

Yesterday's answer 5-21

CRYPTOQUIP

YCKB G LSGBF JP THEK  
YJFC JFP PLNHZFJBRLEKNJHT  
HBK MHZST MGSS FCGF  
RKNAJBCFJHB FKNAJBCFJHB  
Yesterday's Cryptoquip: WANTING SOME FAST MONEY, I HEAR THE GROUP OF BRIDGE-DWELLING BEINGS MAY SET UP A FROIL BOOTH.  
Today's Cryptoquip Clue: Fequats T

### QUOTABLE Quotes

"The inherent vice of capitalism is the unequal sharing of blessings; the inherent virtue of socialism is the equal sharing of miseries."

Winston Churchill

China MDT Experts Group  
Members of Bangladesh

Comprehensive Therapy of  
Modern Cancer Hospital Successfully Resists Liver Cancer

Mr. Rana from Dhaka suddenly felt abdominal swelling and lost appetite in May 2010. He was diagnosed with liver cancer and immediate surgery was suggested. Mr.Rana had accepted surgery. But he found illness did not improve but gradually worsened. In order to seek further treatment, he decided to travel to Guangzhou China. As he got to Modern Cancer Hospital Guangzhou, he was immediately arranged to have checkup which CT indicated his lump had been 3CM. Dr. Tang and other oncologists treated him by combining interventional therapy+ immunotherapy, radio frequency ablation therapy and particle implantation therapy. The tumor of Mr. Rana was reduced through treatment. Interventional therapy is a mini-invasive therapy that under the

guidance of medical image equipment. It mainly has two categories: vascular interventional therapy and non-vascular interventional therapy or diagnosis. With a 1-2 millimeter cut, para centesis could be performed with the lead of medical image equipment like CT. Then the special tube, transcend or other sophisticated apparatus are introduced into human body for diagnosing the conditions or draw some tissues for topical therapy at the same time or any other time. Interventional therapy is applied vastly in tumor diagnosis and treatments because of its advantages like no operation, small wounds, fast recovery and good effect.

To consult about therapies please contact: 0177-5105555, 0177-5106666, Saturday 1 pm. to 5 pm. Sunday to Thursday 9 am. to 5 pm. or visit us in 9/C, Navana Tower, Gulshan-1, Dhaka-1212, Also you can visit our website: <http://www.asiancancer.com>, Log in: <http://www.facebook.com/cancerhealthcare>