

Agriculture on steroids

IN OTHER WORDS



AMITAVA KAR

THE agricultural sector which still employs about 47 percent of the labour force and comprises 16 percent of the country's GDP, is going through a sort of a crisis, despite the phenomenal success it has achieved. Extensive irrigation, high-yielding crop varieties, mechanisation, improvement in markets enabled by policy reforms and investment in agriculture research and human capital have driven a miraculous growth in Bangladesh's agriculture. Today, the largest share of public expenditure for agriculture goes to subsidies. At the same time, a large number of farmers are overusing pesticides and chemical fertilisers, creating environmental and health hazards. According to a recent report in this newspaper, farmers in Ishwardi upazilla of Pabna have been using as much as five times the recommended dose of pesticides on beans, seemingly in fear of losing their investment due to pest attacks. The report reminds me of something Sir Fazle Hasan Abed shared with me in an interview in 2014. "Excessive use of pesticides on vegetables is a big problem," he said. BRAC wanted to grow vegetables for European markets. These vegetables would have to meet the European standards which meant that the amount of pesticides used on the produces would have to be within a certain limit. But farmers started spraying so much pesticide on the crops that at one point BRAC had to send workers to the fields to "confiscate" the sprayers. Do our farmers have an "obsessive compulsive overuse disorder"? Why do they do it? It's not like they get pesticides for free.



PHOTO: STAR

As preposterous as it may sound, they do it because they are not aware of its harmful effects. They also do not seem to know that crops sprayed with insecticides should not be harvested for eating or for sale until 15 days after spraying. Or, they do not care. Do they know that the more they use, the more resistance the pests grow to the chemicals, prompting them to use an even higher amount the next time? Then there's another problem. Unscrupulous businessmen allegedly sell substandard or fake pesticides which are cheaper, yes, but injurious to public health. How do these toxic chemicals get into the market? Excessive use of pesticides, according to experts, increases the risk of high level of toxic residues in crops and vegetables which slowly affect many of our organs such as kidneys, lungs, eyes, stomach and even the

brain. Hazards also include gradual contamination of air, soil, water. Since these adverse effects are not immediately visible, most of us are overlooking the risks. What could be done to keep them from spraying sprees? Legal actions should be taken against farmers who endanger public health, suggested an expert, according to the report. Maybe. But won't it look a little weird if we start jailing farmers for spraying too much while rapists walk free? How about providing them with more training instead on precautions when buying, transporting and storing pesticides, properly calibrating sprayers before use, wearing correct protective clothing, what to use and when to use, disposal of empty containers and so on? It's a challenging task and will have to be done with care. When it comes to farmers, often called the most hidebound of

managers, diffusion of knowledge has to take place through participatory communication and in a joyful environment keeping in mind that they are famously and sensibly sceptical of change, since the cost of getting things wrong (messing up an entire season's harvest) is so high. They need to be trained on Integrated Pest Management (IPM) which is more environment-friendly and has less adverse effects on crops. They should be introduced to new technologies like Leaf Colour Chart (LCC) which will reduce their heavy dependence on fertilisers such as urea. They need crop insurance that will protect them against the loss of crops due to natural disasters or the loss of revenue due to declines in the prices. If the bean farmers of Pabna were insured, there would be less chance of them overusing insecticides in

order to prevent losses due to pest attacks. In an impressive move earlier this month, three officers of the Department of Agricultural Extension developed mobile apps aimed at helping farmers prevent pest attacks and control diseases that eat up a large portion of crops each year. Innovations like these will no doubt help farmers grow crops more efficiently using digital technology. And yet they need more policy support. There should be more coordination between farmers and the Department of Agricultural Extension in order to prevent overproduction which results in sharp decline in prices. They need support in building organised forums which will empower them to bargain prices. The brow of the Bangladeshi farmer is wet with honest sweat. He has performed miracles not only here but also overseas, in the Middle East and in Africa, turning miles of barren land into fertile fields with dancing crops. He is a risk taker. His trade is more complex than we tend to think. It can be viewed as a branch of matrix algebra. A farmer must constantly juggle a set of variables, such as the weather, moisture levels and nutrient content of the soil, competition to his crops from weeds, threats to their health from pests and diseases, and the costs of taking action to deal with these things. If he does the algebra correctly, or someone else does it for him, he will optimise his yield and maximise his profit. The goal of smart agriculture, then, is twofold. One is to measure the variables going into the matrix as accurately as possible. The other is to relieve the farmer of as much of the burden of processing the matrix as he is comfortable with ceding to technology. The writer is a member of the Editorial team, *The Daily Star*.

'The upside of the downside'

NO STRINGS ATTACHED



AASHA MEHREEN AMIN

In a twisted, ironic way we should probably thank President Trump. He has unwittingly unleashed one of the most passionate, universally endorsed and most widely participated marches against the attack on the most fundamental values of a humane, progressive, sane world. It may have started as the 'Women's March' with an emphasis on protesting the misogynistic, racist rhetoric of Trump's election campaign. But ultimately the March was widely participated and replicated in other cities because it voiced concerns that resonated with people, especially women, all over the world.

So was it just a lot of hullabaloo of angry women trying to get some attention just so they could have the right to get their 'unborn babies ripped off their bodies' as Trump had described legal abortion during one of his election speeches? True, the possible denial of basic reproductive rights that include the right to have legal abortion was one of the issues the marchers were protesting but it was more than that. Kamala Harris, a Democrat Senator of the state of California, put it all in perspective. She told the audience how, after being elected as District Attorney of San Francisco, then Attorney General of California and finally Senator of that state, 'folks' approached her and asked her to talk about 'women's issues' and her answer was, "I am so glad you want to talk about... the economy." In the same way every time she was asked that question she had an apt answer - 'national security', 'education', 'criminal justice' and 'climate change'. Her point being, that every pressing issue of the day was a woman's issue because all



The image of Munira Ahmed, a Bangladeshi-American, became a symbol of resistance in the Women's Marches that took place across the globe the day after President Trump's inauguration.

these areas affect women and their families and because women have a vital role to play in addressing them. "If you are a Black woman trying to raise a son you know that 'Black lives matter' - it's a woman's issue." At the same time she reiterated those rights that women in particular, are denied - the right to equal pay, equal access to healthcare and safe, legal abortion. Sadly, only two days later, one of the first things that

President Trump did was sign an executive action reinstating the so-called Mexico City Policy, which bars international non-governmental organisations that perform or advocate abortions from receiving US government funding. This may well be extended to domestic policy which will make it illegal for a woman in the US to terminate an unwanted pregnancy. The determined women - and men of Saturday's March - will

not remain silent about a move that gives the state the right to interfere in one of the most private decisions a woman makes regarding her body. What was remarkable about the Women's March was the spontaneous participation of people from every possible category including men, members of the LGBT community, children, Asians, Europeans, Africans, musicians, artists, writers, celebrities, non-celebrities - there was hardly any group not represented in this March. The reason why millions of people turned up - not only in US cities but in London, Berlin, Barcelona and others - is because it was a way for people to express their fears and insecurities left by a dangerously polarised, intolerant, xenophobic world symbolised by Trump's victory and Brexit that has instigated a rise in rightist, populist politics especially in the West. It was an expression of outrage against the apparent acceptability of anti-woman rhetoric, racial discrimination, religious intolerance and insularity, diseases that keep thriving across the globe. It was the horror and disbelief expressed by millions of people who attended and many more millions who watched it on TV all over the world, that humankind in this century of technological advance and innovation, should be regressing into the dark ages of ignorance, falsehood and hatred. Activist and journalist Gloria Steinem described the surge of people in this March as 'the upside of the downside'. "This is an outpouring of energy and true diversity like we have never seen before. It is wide in age; it is deep in diversity." Alluding to Trump's electoral promise to

get all Muslims registered and screened, Steinem declared that if Muslims have to register then "we will all register as Muslims". She challenged the concept of 'America First', one of the first phrases uttered by the newly elected American President by saying "...we will not be controlled...we will work for a world in which all countries will be connected, looking at each other, linked not ranked." The Women's March was actually a People's March not just for Americans but for all the citizens of the world as expressed through the slogans 'we are the people', 'we have the power.' The realities on the ground may seem contradictory to such optimistic rhetoric. The world is more divisive than ever, with more people dying in senseless wars, more people displaced by armed conflict and climate change, more people persecuted because of their race or religion and more people having a fraction or nothing of the world's wealth. In truth, individually, the ordinary citizen is powerless against states that are hell-bent on curbing fundamental rights in their zeal for political control and aggrandisement. But there is a latent power even in the most helpless, hapless human - the power to protest. The outpouring of January 21 was a show of how that power can be harnessed and unleashed when people, forgetting their differences, come together and unite against injustice and fight for what is undeniably right. So thank you Mr. Trump for helping us remember what we should be standing up against. Thank you for waking us up. The writer is Deputy Editor, Editorial and Opinion, *The Daily Star*.

It was an expression of outrage against the apparent acceptability of anti-woman rhetoric, racial discrimination, religious intolerance and insularity, diseases that keep thriving across the globe.

QUOTABLE Quote

JOHN LENNON
ENGLISH SINGER AND SONGWRITER WHO CO-FOUNDED THE BEATLES

Imagine all the people living life in peace. You may say I'm a dreamer, but I'm not the only one. I hope someday you'll join us, and the world will be as one.

CROSSWORD BY THOMAS JOSEPH

ACROSS

- Patriot Allen
- Gasp, say
- Brother's girl
- Joust wear
- Loved ones
- Much writing
- Balance
- Pay to play
- Tender touches
- Match makeup
- Subside
- Divorce
- Sound-based
- Play part
- Like surgical tools
- Convoy member
- Magazine contents
- Play parts
- Croupier's tool
- West Point inits.
- Signs
- Highland gaments
- Deserve
- Nome home
- Lamb work
- Bed parts

DOWN

- Cease
- Common Father's Day gift
- 2001 Sigourney Weaver film
- Field measures
- Lawman Eliot
- Jay-Z's genre
- Mercurial
- 2016 Sigourney Weaver film
- Tag info
- Grove growth
- Recipe amt.
- Baby food choice
- Neighbor
- Otherwise
- Narrow
- Mile or meter
- Violin quartet
- Georgia neighbor
- Singer Reed
- Pal for Pedro
- City on the Tiber
- Iowa city
- Pass over
- Messy digs
- Young'un
- Distress letters

YESTERDAY'S ANSWER

F	I	F	E	S	A	D	I	C	A	R	B
E	R	O	S	A	D	A	G	I	O		
T	O	O	T	R	E	B	O	O	T		
A	N	T	E	N	N	A	S				
	B	E	A		L	I	F	T	S		
S	C	A	M	P		S	T	O	O	P	
L	O	T								O	R
A	D	H	O	C		A	L	T	O	S	
Y	E	S	N	O		N	I	P			
						S	T	O	N	E	A
F	A	J	I	T	A		S	T	A	R	
E	D	I	T	O	R					T	H
W	O	M	E	N	S		O	S	L	O	

NORTH SOUTH UNIVERSITY
The First Private University in Bangladesh

TENDER NOTICE
Tender No. NSU/17-01

North South University is inviting sealed offer from the bona fide / reputed organizations / distributors / business partners / agents for supplying Laboratory Instruments / Materials for the Department of Mathematics & Physics.

Interested bidders may collect a schedule of tender from the Southeast Bank Ltd. Bashundhara Branch, Dhaka from 10:00 a.m. to 4:00 p.m. on all working days till **12 February 2017** by paying the non-refundable amount of Taka 1,000.00 (One Thousand) in cash for the schedule.

The bidders must submit **earnest money @ 2.5%** of the quoted price in the form of Pay-Order issued from any scheduled bank drawn in favor of North South University along with their offer. The sealed offer must be submitted on **13 February 2017** by 2.00 p.m. at the office of the undersigned. The offers will be opened at 2:15 p.m. on the same day. Representatives of the participating bidders may remain present at the time of opening the bids. NSU authority reserves the right to accept or reject any or all the tenders without showing any reason.

Director, Administration
NORTH SOUTH UNIVERSITY
Bashundhara, Dhaka-1229
Phone: +88-02-55668200, Ext. 1204 & 1213
Fax: +88-02-55668202

www.northsouth.edu