

# Smart agriculture with smart technology

**SHIFAT ARA**  
**T**HE effect of urbanisation is two-fold. On one hand, it boosts development indicators such as economic growth, productivity and human development indexes and on the other hand, the intensifying of the tertiary industry results in more people shifting from the agriculture sector. This might result into a big threat for an agri-dependent country like Bangladesh. In Bangladesh, where agriculture is still a major source of income for 14 million farming households, lack of access to information, along with various other factors demand immediate attention. One cannot stress enough on the need for information regarding agriculture which is vital for farmers to make informed decisions. The last ten years have been a decade of tremendous growth in information communication technology (ICT) in Bangladesh. Currently, the telecom network covers all 64 districts of Bangladesh and almost 84 percent of rural households carry mobile phones. This can be partially attributed to the availability of cheap mobile handsets and the oligopolistic nature of telecommunication industry that allows mobile phone users to enjoy affordable call tariffs and internet packages. Other than the telecommunications sector,

growth is significantly realised through the availability of private sector owned ICT based services, union digital centres and internet cafés at the country's union level. In the context of service availability, what started with agriculture helplines by telecom operators, have expanded to SMS based services and government developed software that provides accurate agriculture information. Private sector agriculture input companies have also established ICT based services aimed at providing product specific and general agriculture information to farmers. The agriculture input sector has effective networks of farmers across Bangladesh, and the ICT can enable these companies to reach out to them faster and more economically. This scenario is already evident as leading seed, aqua-chemicals and fish feed companies are adopting various ICT based mechanisms to reach out to farmers in order to ensure proper usage of their products. This has a two-fold benefit; firstly, this allows companies to present themselves in an empathetic light to their farmers, and secondly, accurate and timely information enables farmers to enjoy higher yields and enables companies to retain their customers. These services are concerned with providing customer care solutions for farmers and is considered part of marketing initiatives in order to reach out

to a wider scale of farmers; however, the input sector is only at a nascent stage of utilising ICT. Strong linkages between software developers and input companies with sufficient knowledge of information seeking behaviour of farmers is required to design appropriate farmer-friendly ICT services - none of which currently exist fully in the industry. Designing the right kind of services is one of the most critical elements to ensure its usage at the farmer level. Unlike many other sub-continental countries, one of the major limitations in designing ICT based services for the rural farmers in Bangladesh is the low literacy and technology adverseness. This confines the type of services that can be designed for the said demographic. While farmers in Africa can benefit from smart text messaging giving them vital information on farming, farmers in Bangladesh are unable to enjoy that luxury. SMSs and other pull-based ICT services that require farmers to register/subscribe also do not work because of their complexity and because farmers are not in the habit of utilising their mobile phones for any other purposes than making or receiving phone calls. ICT services that involve engaging "call-centre" agents are therefore the way to go. There are currently plenty of services using this approach to give information

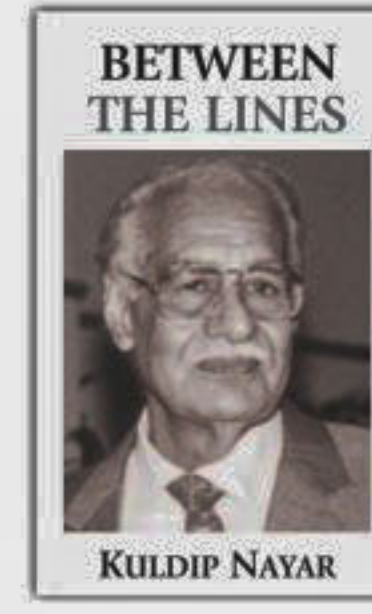
to farmers, for example, agriculture helplines that benefit farmers by solving their queries on disease prevention, general agriculture practices, etc. Solutions provided for critical problems by these services are seen to have direct impact on farmers' incomes. Although various ICT services exist, their usage is limited due to lack of awareness. Carefully designing promotional activities for the usage of these services is therefore highly essential. It is a component that demands careful attention, but is more than often not prioritised. Unless these services are properly presented to farmers, they will continue to utilise existing and traditional sources of information in times of crisis, and reach out to ICT only when the need for information is dire and traditional sources of information have not sufficed. Traditional promotional tools such as hype creation through music and drama, SMS alerts and recorded voice calls lead to short-term increase in the usage of ICT services but fail to bring about a lasting effect. Bringing about behaviour change at the farmer level will require campaigns targeted towards changing farmers' perception of technology. The goal should be to position ICT as a comprehensive and reliable source of agriculture

information. This again is time consuming and highly expensive. The growth of ICT in the context of Bangladesh is promising. For ICT to benefit the nation's 14 million farming households through agriculture information, it is essential to design ICT solutions that are user friendly and cost effective. Young farmers who will constitute the farming population in the future will be able to make use of a variety of ICT services due to their tech-savviness and better literacy than their preceding generations. The future of ICT for agriculture also includes telecom operators, agriculture content providers, software developers and various other market actors designing new services targeting farmers. Leading agriculture input companies who are currently utilising ICT to expedite services can also expedite the expansion of ICT by showcasing the industry the benefits of it and share their experiences for other companies to build on. Lastly and importantly, the continuity of favourable government policies and regulations (on internet and call tariffs) will be a pre-requisite on a broad level for the rapid expansion and utilisation of ICT in all aspects of development.

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The writer is Senior Business consultant, Swisscontact-Katalyst.

## Ill-conceived, wrong



KULDIP NAYYAR

**BETWEEN THE LINES**  
**F**AROQQ Abdullah has said in an article in a well-produced Urdu journal from Srinagar that his late father, Sheikh Abdullah, would have been happy to know that Kashmiri youth were picking

up guns to demand their rights. This, I believe, is nothing but a figment of Farooq's imagination. Even Pakistan's Foreign Minister, Zulfikar Ali Bhutto, had a similar approach. He sent infiltrators into Kashmir in the hopes that the Kashmiris would rise against India, and join his demand of the region's accession to Pakistan. He turned out to be wrong. The Kashmiris, Sufi by nature, were against fanaticism and protested against religion as a criterion to decide on accession. The Pakistani infiltrators were detected by the Kashmiris themselves and handed over to the Indian army. I knew Sheikh *sahab* (Sheikh Abdullah) fairly well. He was the first person to come to my hotel as soon as I informed his office about my presence in Srinagar after my three-month detention during the Emergency. I remember his words: *Ab tum bhi Haji ho jaoge* (You will also become a Haji), referring to my jail 'pilgrimage'. Sheikh Abdullah was referring to my detention in Tihar jail because I had written strongly against Indira Gandhi's authoritarian rule. This reminded Sheikh *sahab* of his detention ordered by India's first Prime Minister Jawaharlal Nehru at Kodaikanal in Tamil Nadu. He was so close to Nehru that he would stay in his house whenever he came to Delhi. Even after the detention, he stayed with him because Nehru admitted his mistake and apologised. Those who continue to assert that Kashmir is an integral part of India are wrong in the sense that the State of Jammu and Kashmir enjoys autonomy as enunciated in Article 370, which says that except for three subjects - foreign

affairs, defence and communications - the other Articles of the Constitution that gave powers to the central government would be applied to Jammu and Kashmir only with the concurrence of the state's Constituent Assembly. In other words, because of these constitutional provisions, the State of Jammu and Kashmir enjoyed the type of autonomy which other states don't have. Subsequently, Sheikh *sahab* had national struggle to obtain independence from the maharaja and the British, took no time in joining India because his heart was for a pluralistic state. A democratic India, where there would be religious freedom, was the obvious choice for him because Pakistan was wallowing in a somewhat extremist Islam at that time. With the passage of time, Sheikh *sahib* became the only liberal voice

an unequivocal language. Mrs. Indira Gandhi traced the statement to my equation with Sheikh *sahab*. But what mattered was boosting the morale of those detained during the Emergency. The entire nation had fallen silent and was afraid to speak out at that time. It had lost the sensibility to differentiate between wrong and right, moral and immoral. Whenever he spoke, the whole of India

him to Kashmir. He would have admonished New Delhi for creating such conditions that the Kashmiris were forced to pick up guns because the centre failed to make good on the promise: the centre will have only three subjects, defence, foreign affairs and communications, and the rest will be in the domain of the state. Farooq Abdullah's earlier statement was constructive. He said that India should recognise the Line of Control (LoC) as the international border and allow Islamabad to integrate the Pakistan occupied Kashmir (POK), which is at present under the Pakistani army. In fact, Farooq has hit the nail on its head because both countries have clashed with each other often on the violation of the LoC. Whatever their strategies or aspirations, the two sides should face the fact: the LoC is the international border. Both India and Pakistan have fought two wars in trying to resolve the border issue on their own. They cannot afford to have another war, particularly when both now possess nuclear weapons. Pakistan Prime Minister Nawaz Sharif has done well in allaying the fears of India on the Pathankot incident. He has asked for more details because he probably found that the leads that were provided by India were not adequate. He has done well in detaining Masood Azhar, who was also behind the Mumbai attacks. It is a healthy development that the meeting of two foreign secretaries was rescheduled and not cancelled altogether, as was feared after the Pathankot attack. New Delhi also seems to appreciate the pressure under which Nawaz Sharif is functioning because the last word is still with the army. The Pakistan army chief's importance can be seen from the fact that Nawaz Sharif took him to Iran and Saudi Arabia for mediation talks between the two countries. I feel sad to see Nawaz Sharif giving an equal protocol to the army chief in every meeting that he attends. The tragedy in a third world country is that once the armed forces become a part of the government, they do not go back to the barracks.

The writer is an eminent Indian journalist.

*With the passage of time, Sheikh sahib became the only liberal voice which could be heard clearly in the midst of Hindu and Muslim challenges and counter-challenges.*



Sheikh Mohammad Abdullah coming out of Jammu jail before returning to power. SOURCE: KASHMIRLIFE.NET

the state Constituent Assembly pass a resolution that the state of Jammu and Kashmir had acceded to India irrevocably. Before doing so, he sent Sadiq *sahib*, who became the state Chief Minister later, to Pakistan to assess what kind of polity Islamabad was going to pursue. After hearing Sadiq's views on the policy which Rawalpindi wanted to follow, Sheikh *sahab*, a product of the

which could be heard clearly in the midst of Hindu and Muslim challenges and counter-challenges. I recall when I was released from Tihar Jail, my co-prisoners asked me to visit Srinagar and request Sheikh Abdullah to speak against the Emergency because he was respected all over the country. When I met him in Srinagar, Sheikh *sahab* saw our point and issued a statement, criticising the Emergency in

listened to him because his statements transcended state boundaries. In the process, he translated the real sentiments of people. So much so that even political parties in the opposition lapped up whatever he said because he kept India above state interests, and because he had the aura of a leader who did not delve into the pettiness of politics. Farooq Abdullah has tried to dwarf Sheikh Abdullah's stature by restricting

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**QUOTABLE Quote**

**LANGSTON HUGHES**  
 (February 1, 1902 – May 22, 1967)  
 American poet, social activist, novelist, playwright, and columnist

*We Negro writers, just by being black, have been on the blacklist all our lives. Censorship for us begins at the colour line.*

**CROSSWORD BY THOMAS JOSEPH**

**ACROSS**

- Pamphleteer Thomas
- 1992 Nicholson film
- Building wing
- Land measures
- Budget watchers
- Language suffix
- Squeeze (out)
- Adam's mate
- Out of the workforce
- Golfer Hogan
- Rte.-suggesting system
- Pocket fuzz
- Fancy neckwear
- 26 Conveys
- Rating unit
- Order's partner
- Light touch
- Time of delivery, perhaps
- Needle feature
- 34 Golf's Ernie
- Pasture
- Ones watching streaming TV
- Lesson giver
- 40 Waken
- Hardhearted

**DOWN**

- Indiana basketball player
- Win by--
- Miniature map
- Butterfly catcher
- Book bit
- Despised
- Fall mo.
- Giveaway
- Impassioned
- Concurs
- 14 Luau instruments, for short
- Composer Stravinsky
- Smutty
- Features
- "Don't come in!"
- Indulge
- Orchestra leader
- Humdinger
- 30 Condemn openly
- 31 Alaskan native
- 32 Hardly wordy
- 33 Moved carefully
- 38 Oxford bigwig
- Apex

**YESTERDAY'S ANSWER**

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

**BEETLE BAILEY** by Mort Walker

**BABY BLUES** by Kirkman & Scott