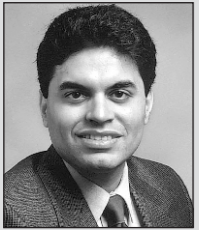


How we can prevail



FAREED ZAKARIA
writes from Washington

THE London bombings have failed. Barbarous in intent, brutal for a few hundred people, unsettling for all who watched in horror, they have nonetheless failed. In one day much of the city's transport system was up and running again, its Underground stations busy and its buses crowded with passengers. Most businesses stayed open, and people didn't panic. Right after the blasts, England was scheduled to play Australia in a cricket match at Headingley stadium in Leeds, 170 miles from London. The organisers decided that the game would go on. England won.

The clear hope of the terrorists last Thursday morning was to disrupt economic activities at one of the world's financial centers. For years now, al Qaeda's leaders, including Osama bin Laden, have urged that this be the goal of future attacks. But in 24 hours the London stock market was back to its pre-bombing levels. World markets bounced back even faster. All indications are that Britain will see a minimal drop in tourism and virtually none in trade.

This is part of a larger pattern of global resilience that has been growing ever since September 11, 2001. After those attacks, global markets took two months to return to their September 10 levels. After the Madrid bombings in 2004, the Spanish market took one month to recover. The broader economic picture is similar. After 9/11, the United States lost hundreds of billions of dollars in economic activity. The Bali nightclub bombing in 2002 had a similarly dramatic effect on the Indonesian economy, with tourism vanishing and trade and investment drying up for months. But a year later, after another Indonesian bombing, this time at the Marriott hotel in Jakarta, the market dropped only briefly and there was little significant damage to the Indonesian economy. The bombings in Morocco and Turkey in 2003 similarly had little economic effect. After the Madrid attack, Spain grew faster than it had for three years.

Economic activity is perhaps the best measure of the psychological

response to terrorism. Do people get scared, stay home, refuse to travel, and shop less? Or do they come to the view that life goes on? Overwhelmingly, much of the world appears to have arrived at the latter position. And in doing so, people have robbed the terrorists of their most potent weapon.

The other important difference between the London bombings and 9/11 has been the response of the world of Islam. For months after 9/11, I kept writing that it was sad and disturbing that Muslims were

which has allowed Muslims to concoct wild conspiracy theories, blame others for their problems and, worst of all, condone grotesque violence.

Now things are changing. The day before the London bombs, a conference of 180 top Muslim sheiks and imams, brought together under the auspices of Jordan's King Abdullah, issued a statement forbidding that any Muslim be declared takfiran apostate. This is a

leaves 20,000 people to worry about. If 99.9 percent of the Muslim world is against the terrorists, there's 1 million people out there who are dangerous. And the technologies of destruction ensure that they will, on occasion, be successful.

To realise victory, we have to understand this struggle is more complex than we have been led to believe. Simple slogans telling us we fight terrorists in Iraq so that we will not have to fight them here, are just that: slogans, not comprehen-

materials or biological pathogens. So far the Bush administration has not given this danger the priority it urgently requires.

The broader shift that needs to take place, however, is a better definition of victory. America's political leaders continue to give their citizens the impression that victory means ensuring that there will be no other attack on American soil as long as we go on the offense abroad, get perfect intelligence, buy fancy new technologies at home, screen visas and lock some people

been a perfect example of US grandstanding. We immediately raised the alert level, scaring Americans, with no specific information about terror attacks in America. Why? Because were something to happen here, politicians and bureaucrats want to be able to say, "Don't blame us, we told you."

Real victory is not about preventing all attacks everywhere. No one can guarantee that. It's really about preventing the worst kinds of attacks, and responding well to others. And on this score, America remains woefully unprepared. "The British attacks failed because Britain has excellent response systems and its people are well prepared on how to respond. America has neither advantage today," says Stephen Flynn, a homeland-security expert and author of "America the Vulnerable: How Our Government Is Failing to Protect Us From Terrorism."

"We need good education and training for transit workers and citizens, good communication mechanisms among government agencies and the people, and most important, a good public-health infrastructure." We have little of this today. In the years after 9/11 we have wasted much time, effort and money on other priorities rather than engaging in the massive investment in the systems of response that we need. Our leaders remain unwilling to speak honestly about the world we live in and to help people develop the mentality of response that is essential to prevailing.

The bombs were meant to show that the terrorists were strong and we were weak. In fact they have shown the opposite. But to realise victory fully, we must know what victory means.

With Carla Power and Rana Foroohar in London, and Christopher Dickey and Eric Pape in Paris.

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reluctant to condemn the attacks. This time is different. Major Muslim groups in Britain have unambiguously denounced the bombings. Even "fundamentalist" organisations have condemned it. The Muslim Association of Britain, a hard-line group with alleged ties to militants in the Middle East, called the bombings "heinous and repulsive" and urged Muslims to help the emergency services and police. "We have faith in Britain and British people that we as a country will not be defeated by this," said its spokesman, Anas Altikritli.

The response outside Britain has also been much stronger than ever before. The grand imam of Al-Azhar, Sheikh Mohammed Sayyed Tantawi, condemned the bombers but went further, rejecting the argument that this attack could be justified as an attempt to force Britain out of Iraq. "This is illogical and cannot be the motive for killing innocent civilians," he said. More striking have been the condemnations from radical groups like Hamas, Hizbullah, and Egypt's Muslim Brotherhood, all of which have denounced the bombings. Many of them have, of course, coupled their attacks on the terrorists with denunciations of American and British policies in the Middle East, particularly regarding Iraq and the Palestinian territories. But that kind of rhetoric is old news. What is new here is the fact that no one, not even Hamas, can continue to condone or even stay silent about these barbarities.

September 11 shocked the Arab psyche. For months afterward, Arabs and many Muslims went through phases recognisable to psychologists: shock, denial, anger. (Remember those absurd claims that 9/11 was a Mossad plot?) They are finally, slowly, moving toward recognising that there is a great dysfunction in the world of Islam,

frontal attack on al Qaeda's theological methods. Declaring someone takfirand thus sanctioning his or her death is a

favourite tactic of bin Laden and his ally in Iraq, Abu Mussab al-Zarqawi. The conference's statement was endorsed by 10 fatwas from such big conservative scholars as Tantawi; Iraq's Grand Ayatollah Ali Sistani;

Egypt's mufti, Ali Jumaa, and the influential Al-Jazeera TV-sheik, Yusuf al-Qaradawi. Signed by adherents of all schools of fiqh (Islamic jurisprudence), it also allows only qualified Muslim scholars to issue edicts. The Islamic Conference's statement, the first of its kind, is a rare show of unity among the religious establishment against terrorists and their scholarly allies.

This hardly puts an end to the struggle within Islam. The same day the Jordanian statement was issued, al Qaeda in Iraq said that Egypt's ambassador to that country, Ihab al-Sherif, would be killed as an apostate. The day of the London bombings, an Internet message purportedly from Zarqawi's group said the "ambassador of the infidels" had been killed.

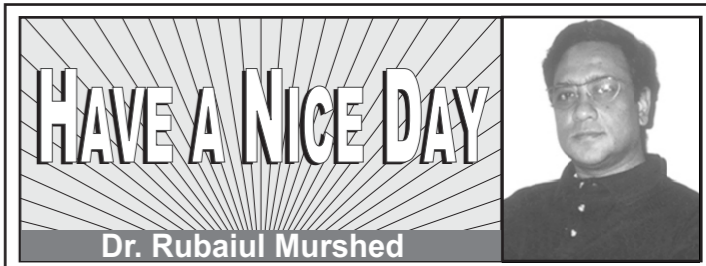
These kinds of events will continue. There should be much, much greater condemnation from mainstream Islam. Moderates must adopt a zero-tolerance policy on terrorism, regardless of what they think of Iraq, Palestine, or any other policy issue. But those clamouring for such condemnations should bear in mind that this will not solve the problem. Even if the moderates win and overwhelm the extremists, there will always be some number of unconverted jihadists, who either out of depravity or conviction seek to do evil. If 99.99 percent of the Arab world rejects terrorism, that still



Police conduct a search on 12 July for evidence at St Pancreas parish church, near the scene of a bus bombing in London.

sive policies. In fact, as London shows, terrorists can fight in two places at the same time. Or three. Or ten. And the great danger, of course, is that they can fight with dangerous weapons. The calculus of terror would change irrevocably if one of these splinter groups were ever to get its hands on nuclear

up. But all these tough tactics and all the intelligence in the world will not change the fact that in today's open societies, terrorism is easy to carry out. The British authorities, perhaps the world's best at combating terror, admit they had no warning about last week's attack. The American response to the London bombs has



All health information to keep you up to date

Food: Facts not fictions

It is better not to cut vegetables before cooking. If you want to cut them before cooking, cut them into big pieces. It is also favourable not to chop or slice thinly. In that way nutrient loss is more, as it increases the surface area. Try to peel potatoes after cooking since it helps to preserve the nutrients. At least 10 percent of nutrients is lost if you peel vegetables before cooking. After washing your hands do not forget to dry them before eating. If hands are still wet, organisms present on wet hands may be more easily transferred to food lying on your plate. Take into account: bacteria that causes food poisoning does not always look, smell or taste divergent. Cow milk should be stored in the coldest part of the refrigerator. And dry milk powder should be used within the stipulated period of six months from the date of manufacture. It is not true that food poisoning is always from what you ate last evening or night. It may take two days or more to develop the signs/symptoms of food poisoning. But it is true that it varies from man to man depending on immunity. For this reason small children with immature immune system are at a greater risk of food poisoning than others. Well it could be also adults whose immune system is weak.

In deep frying the food is cooked at above 150 degree C, where values of food substances are reduced to minimum. Over and above, cooking oil or fat used for deep frying should not be repeatedly used since prolonged use of the fat causes polymerisation of the fat which ultimately not only irritate gastro-intestinal tract, but also suspected to be potential carcinogens.

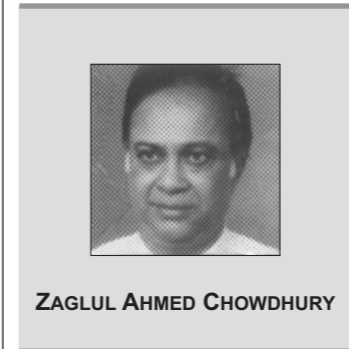
Cooked food should be refrigerated immediately. There is no need to cool at room temperature before refrigeration. Food poisoning bacteria often grow at temperatures between 5 and 60 degrees. This period is also known as the "temperature danger zone". Keeping food out of the temperature zone will reduce the risk of food poisoning.

Lot of people think that re-heating food can make that secure to eat. In fact, it's not always true. There are some bacteria which can form poisons that are not eradicated by heating. Another point regarding food poisoning is that the formation of poisons may occur if the food has been allowed to cool slowly. Anyway, it is not a good idea to keep your foodstuff out of the fridge too long.

Most ripe fruits other than bananas and apples can be stored in the refrigerator. It is better to avoid over ripe fruits as they are a source of infection. Unripe tomatoes should be stored at room temperature. And, once frozen vegetables are thawed, it is better not to be refrozen.

Ice cream is not a useless food. It contains all the nutrients found in milk which includes calcium, vitamin A and protein. But unfortunately it is also high in fat. That's why it is not good for obese or overweight people or those who have high cholesterol level

For integrated approach to rural development



ZAGLUL AHMED CHOWDHURY

THE Asia-Pacific region is both most densely populated and poverty-ridden and hence calls for all round developmental efforts to improve the quality of life of the vast population. Despite the existence of various international and regional organisations dealing with broad-based socio-economic uplift activities on a global scale and also particularly for the region, coordinated policies specifically about rural development have made little headway towards its avowed objectives. Needless to say that an overwhelmingly large population of this region live in rural areas and are evidently mired in abject poverty. The issue of rural development is inextricably linked with the larger issue of poverty and, consequently, no meaningful socio-economic progress is possible unless this critically important area is addressed substantially.

When the world is apparently so concerned over the plight of the global poor and leaders of the G-8 nations in their just concluded summit in Scotland sought to help the poor by pledging debt relief and additional financial assistances, fact remains that poverty in the world and more in the Asia-Pacific region remains nearly as acute as before even though more pragmatic policies and action-oriented programmes aimed at poverty alleviation are crystallising. Many have hit the nail on the head by pointing out that the welfare and betterment of the world and society as a whole hinges on the elimination of poverty as far as possible and this remains largely unfulfilled in this region even though many countries have made spectacular achievements and progress in the world. The human index reports pertaining to this region seldom project encouraging indications about any significant improvement in the quality of life of the common people. Thus poverty alleviation has become the burden duty for all and more for the rich and well-off nations and this warrants more serious efforts.

During the 1970's the implementation of the integrated rural development programme (IRDP) was high on the agenda of many developed and least developing countries including those in the Asia-Pacific region. It was felt that the promotion and success of the IRDP programme could be facilitated through regional cooperation, establishment of national institutions to deal with the issues at stake

MATTERS AROUND US

Asia-Pacific region's progress in the field of poverty alleviation mainly through rural development can considerably contribute to reduction of poverty on a global scale. Main south Asian nations with big population and huge number of poor are covered by regional institutions. Development of these regional organisations and turning them more dynamic will render great contribution to the field of rural uplift and eradication of poverty.

and creation of an inter-governmental organisation to work closely with countries, organisations and agencies to support regional networking. In response to these felt needs of the Asia-Pacific region, the Centre for Integrated Rural Development in Asia and the Pacific (CIRDAP) came into being in 1979 at the initiative of the United Nations Food and Agriculture Organisation (FAO) and other UN agencies and donors. It was a step in the right direction as the forum was mandated to work as a regional body and an inter-governmental think tank for policy advocacy and an autonomous civil service institution for policy dialogue to facilitate effective planning and implementation of rural development process in the CIRDAP member countries.

The organisation has just celebrated its 26th anniversary on July 6 with great promise to mitigate rural poverty and accelerate rural development in the Asia and Pacific region - home of more than two billion people, many of whom groan in miserable poverty.

The centre was established on July 6, 1979, at the Bangladesh Academy for Rural Development (BARDA) in Comilla with a modest beginning but over a last 26 years it has blossomed into a viable and effective agency dedicated in eradicating rural poverty with realistic and scientific attitude and research. The headquarters was later shifted to Dhaka and the chiefs come from the member countries. The first two chiefs were from Bangladesh and then from Thailand, India, Myanmar and the current director general is from Nepal. For Bangladesh, this is the only inter-governmental organisation which has its headquarters in this country and as such it is a pride institution for the host nation. Successive governments have spared no efforts to strengthen this institution as Dhaka has special stakes in its growth and development.

Its objectives are to assist national action, promote regional cooperation and act as a servicing institution for the member countries for promotion of integrated rural development through research, action research, pilot projects and training and making every effort to attain its avowed goals through various kinds of projects" said Dr. P. Paudyal, director general of the centre. He said CIRDAP has made its presence felt in the region in the area of rural development and poverty alleviation.

Dr. Paudyal portrays a challenging and encouraging future for the CIRDAP and adds that the coming ministerial level EC and GC meeting in Dhaka in the end of September, this year, will draw up future vision for the organisation, whose membership is increasing because of the commendable work. He said CIRDAP is developing strategic partnership in its works with different regional and international forums and organisations and looking forward to similar links with the SAARC, Bangladesh, as the host nation, is extending all possible support and assistance to the growth and development of CIRDAP, the director general said.

True, in a modest way, the institution has rendered valuable contributions to the integrated approach of rural development in the Asia-Pacific region. However, it has certainly not progressed by leaps and bounds as many had expected. One main reason is the paucity of resources badly required for such an organisation for its multi-faceted works that include extensive research as well as action-oriented programmes. Some donors need to be more attentive considering the organisation's relevance in the vast region. At the same time, the organisation itself needs to bring more countries under its fold to make it more representative and enhance its weight. It was heartening to note that a seminar here marking the 26th anniversary of the agency also laid emphasis on the need for reforms and embellishment in the organisation to turn it more meaningful and work oriented.

Asia-Pacific region's progress in the field of poverty alleviation mainly through rural development can considerably contribute to reduction of poverty on a global scale. Main south Asian nations with big population and huge number of poor are covered by CIRDAP and such regional institutions. Development of these regional organisations and turning them more dynamic will render great contribution to the field of rural uplift and eradication of poverty. The issue requires greater attention and urgency because welfare of the billions is inseparably linked with the matter of national existence.

Zaglul Ahmed Chowdhury is a senior journalist.

A low-cost, environment-friendly device for augmenting rice cultivation

DR. MUSHERRAF HUSAIN

CHIEF Scientific Officer, ARD, BRRI, Gazipur Urea is one of the most important fertilisers needed in rice cultivation. However, among all fertilizers, urea (which contains nitrogen) use efficiency in rice cultivation is the lowest (maximum only 30 percent), since it is highly mobile within the soil plant system. This is why urea is usually applied in splits at different stages of crop growth to minimise the loss of applied urea and improve the efficiency of nitrogen use. The fate of applied urea is: uptaken by the plants (up to 33%), loss through volatilisation, surface run off and leaching down. A large fraction of the applied urea is volatilized, which eventually causes environmental pollution. Flexibility of the farmers in adjusting the timing and amount of fertilizer applied offers great potential to synchronise N application with the demand of the rice crop in real time. When N application is not synchronized with crop demand, N losses from the soil plant system are large leading to low N fertilizer use efficiency.

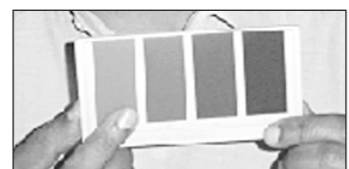
Farmers in many parts of the world tend to apply excess amounts of N in quest of achieving higher yield of rice. Urea is one of the cheapest among all fertilizers and is required in large quantity. This is another reason why farmers usually apply urea in amounts more than required, sometimes to compensate for deficiency of other more expensive fertilizers e.g. TSP, MP etc. Excess use of urea is detrimental to crops and environment. Because of over use of urea, more vegetative growth often takes place at the cost of reproductive growth resulting in lower yield. Plants get lodged causing sterility, more insect and disease infestation lead to lower yield and higher pest management costs. It is, therefore, necessary to apply urea in a judicious way based on plant's demand.

Need-based N application
N deficiency is the most commonly detected nutrient deficiency symptom in rice. Old leaves and sometimes all leaves become light green to chlorotic at the tip. Leaf colour and canopy appearance are the visual indications of nitrogen deficiency in rice plants and are, therefore, the indicators for determining the time of urea application. Because leaf N content is closely related to photosynthetic rate and biomass production, it is a sensitive indicator of dynamic changes in

crop N demand within a growing season. Farmers, therefore, generally use leaf colour as a visual and subjective indicator of the crop's N status and need for N fertilizer application. Soil and plant analysis for N availability is another means of determining the need for applying N fertilizer. However, soil analysis is not an easy way of doing so and such analytical facility is also not that available to farmers. Thus, it is not practical as part of routine soil analysis. Soil tests for N fertilizer recommendation in flooded rice field have not been successful.

The chlorophyll meter, also known as soil plant analysis development (SPAD) meter can quickly and reliably assess the leaf area based N status of a crop. It has been successfully used for rice and other cereal crops. The principle underlying SPAD as a diagnostic tool to determine rice plant's need for additional fertilizer N is based on the fact that rice leaf N concentrations are positively correlated with rice yield and that leaf N correlates with leaf greenness. Leaf Colour Chart (LCC) is another simple and inexpensive instrument to assess the need of the rice plants for nitrogen and to apply the right amount of nitrogen fertilizer (urea).

What is a Leaf Colour Chart (LCC)?



LCC is basically a four inch (previously it was 6 inch) plastic colour device having four separate strips of colour in it. The colour gradients are from light yellowish green to dark green. The first leaf colour chart was developed in Japan. Chinese researchers developed a much improved LCC and calibrated it for indica, japonica and hybrid rice. This chart later became a model for the LCC currently distributed by IIRRI's Crop Resources and Management Network (CREMNET). The colour chart is an ideal tool to optimise nitrogen use in rice cropping irrespective of nitrogen source applied - organic or inorganic.

The instrument is being increasingly used in many Asian countries like Japan, Vietnam, China, Philippines and India to determine the real time based N application. The strip 2 (of the modified version)

is yellow, located on the left most corner of the LCC and the strip 5 is deep green on the right most corner. The strips in between (numbering 3-4) are green in varying proportion, with the gradients being increasingly deeper rightwards. There is a critical value for LCC by which the need for urea application is determined, varying over transplanted and direct wet-seeded rice. The suggested LCC critical value is 3.5 for transplanted aman and boro rice. The equivalent value for high-density direct wet-seeded rice is 3.0. If the "greenness" of paddy canopy is found at or below the critical value, it means the paddy needs urea and if the "greenness" is found above the critical value, it will indicate that there is already adequate N supply for the rice crop and there is no need to apply more.

How to use the colour chart?

Take LCC readings from 14 days after transplanting for transplanted rice or 21 days after seeding for direct wet-seeded rice in Aman season. But in Boro season, it should be done one week later. The last reading is taken when the crop is at the stage of first flowering. Take readings at the same time of the day (9 am to 11 am or 2 pm to 4 pm) with the sun at your back to shade the leaf being measured. The same person should take the leaf colour measurements throughout the crop period who has the experience or judgment in colour variation isolation.

Select at random at least 10 disease or insect pest damage free rice plants in a field with uniform plant population. Compare the colour of the uppermost fully expanded leaf of the 10 selected plants by placing its middle part on top of the colour strips in the chart. If the leaf colour falls between two grades, the mean of the two values is taken as the LCC reading. For example, if the leaf colour lies between chart values 3 and 4, it is noted as 3.5. Do not detach or destroy the leaf. During taking reading, you should move in the fields very carefully. If six or more leaves read below a set critical value (3.5 for transplanted and 3.0 for direct wet-seeded rice) apply 7.5 kg urea per bigha (33 decimal) in T. aman and 9.0 kg urea per bigha land in boro season. Repeat the process every 7-10 days or at critical growth stages (early tillering, active tillering, panicle initiation and first-flowering).

If the LCC value on the day of measurement is found above the critical value, take the LCC reading again after 5 days and apply urea, if needed.

Remember that LCC is used to assess only N requirement of rice plants, other fertilizers must be applied as recommended. The visual symptoms of N deficiency can be confused with those of sulfur



A farmer taking LCC reading in his field.

deficiency which tends to first affect the younger leaves or all leaves on the plant. Slight N deficiency can also be confused with iron deficiency but the latter affects the emerging leaf first.

Potential benefits of LCC

LCC as a tool for guiding N management in rice has been tested at on-farm and on-station. The use of LCC-based N management has been found to save about 20 kg N ha⁻¹ (equivalent to about 45 kg urea, which is worth taka 270/-) in West Bengal, India. In Bangladesh, LCC has been validated by BRRI scientists under farmers' conditions since 2000 in collaboration with the International Rice Research Institute (IRRI). It has been observed that LCC-based N management increased yields of both aman and boro rice to some extent. However, there is significant amount of urea saving due to LCC-based N management. This urea saving was 50-60 kg per hectare, which is equivalent to Taka 300-400. In Bangladesh, the potential area for LCC-based N management has been estimated to be about four million hectares of which about 1.5 million hectares are for T. aman and about

2.5 million hectares for boro season. LCC-based N management may result in a potential national benefit of Taka 1306 million which will come from savings of urea. The figure will be multiplied several times if the value of additional rice yield is considered.

LCC has been successfully tested and validated with the high yielding rice varieties. The technol-



ogy is currently being disseminated by BRRI and the Department of Agricultural Extension (DAE). Some NGOs are also disseminating the technology to the farmers. Efforts should be made by all concerned to strengthen the upscale of this useful technology by the farmers so as to improve national resource conservation, improve land productivity and protect environment.

Limitation of LCC use

LCC can assess only the leaf colour but sometimes the assessment through LCC may not be 100 percent accurate. Genetic variation of different rice varieties in respect of natural leaf colour must be considered. The critical value 3.0 or 3.5 is not always true for all the cultivars. Perception of the LCC reading takers regarding leaf colour variation should be justified. Taking of LCC reading should be avoided just after rain, especially in monsoon even the day after rain since it may produce misleading result.

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