

THOUGHTS ON WORLD ENVIRONMENT DAY

Need for a green budget

DR. MAHBUBA NASREEN

Forests: Nature at your service' is the theme slogan of World Environment Day, 2011. It reminds us of the call of Engels, "let us not...flatter ourselves over much on account of our human conquest over nature. For each such conquest takes its revenge on us". Other classical or 'positivists' (Comte, Durkheim, Spencer and others), however, might have thought that natural resources will never be depleted. The popular idea, around the 'developed world', was that a nation will achieve progress through industrialisation (raw materials of which have to be extracted from nature, mainly from forest resources around the world). Since then, despite nature's endless effort to provide a balanced natural habitat for all species, human population has been engaged to unprecedented consumption through indiscriminate squeezing the nature's resources.

Since late nineteen eighties deforestation has been identified as one of the causes for environmental pollution, climate change and frequent disasters. As a result of deforestation about 10,000 species around the world have been disappearing every year. Many species are already on the verge of extinction just now. Research indicates that deforestation should be central to all contemporary discussion on climate change. This is because forest is the controller of atmospheric temperature and moisture as the biomass of tropical forest preserves about 55 percent of the world's organic carbon. Deforestation exhilarates the process of building up greenhouse gases by interrupting the natural absorption of carbon dioxide by forests. This has also been argued that production of greenhouse gases are more from burning of tropical forests than fossil fuel.

To analyze the thrust of the

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slogan of environment day, 2011 for Bangladesh one has to refer back to the role of forest resources in conserving the ecology, environment and biodiversity of the country. It is a well known fact that the ecological, social and cultural diversities of Bangladesh have been contributed by the interaction of various species and ethnic peoples living in the forest zones. The country has been identified as a distinct one due to its varied nature of biodiversity. The mangrove forest, one of the world's beautiful natural settings in the Sundarbans, protected the country from being totally devastated by great cyclones and surges including Indian Ocean earthquake and tsunami, 2004.

For last two decades Bangladesh has become a 'role model' of deforestation, artificial plantation with exotic and alien species and abuse of power in the name of government forest department. Human population involved in such type of destruction of the biodiversity is not concerned about 'natural community' or living with all species in a natural habitat. They do not define environment from the perspective of 'a microbic action to the size of world population'. They neither consider the importance of establishing direct linkages amongst production, consumption and environment. Deforestation also contributes to the socio-economic and cultural crises, examples of which can be drawn from the perspectives of the rights of indigenous people.

Due to deforestation and structural establishments, the biodiversity of forest lands has drastically been degraded as well as significant changes occurred in the livelihood patterns of indigenous communities.

It is a popular saying that a country should at least have 25 percent forest cover for a balanced environment. Bangladesh does not even have more than 10 percent. Being encouraged by different programmes, people have been planting trees (mostly quick-growing alien species) at a large scale, and may be getting benefit out of plantation. However, we should realize that plantation can never be an alternative of natural forests. It is only the natural forests which are able to provide us with food, medicinal herbs, fodder and ingredients to make our living meaningful in a given habitat, which can neither be the goal nor the outcome of plantation. In this context we must recognise that there is no alternative to taking steps to prevent deforestation in the natural community.

In June Government of Bangladesh will declare the budget for 2011-2012. It is expected that as of last year the environmental issues will find a status in the budget. However, while development of a country is measured through GNP or defined in terms of economic growth, it is expected that environment will not get its due space. For an environment-friendly budget, one has to look for the answer of the question 'to

what extent economic growth is an adequate measure of development'? If economic development considers all kinds of productive activities at a similar level or if budget is based on utilizing resources without considering the differences between renewable and non-renewable resources it should not be considered as environmentally friendly.

In the past unplanned industrialisation, which has either been established through clearing the forests or encroaching rivers, has been identified as contributory to economic development. To overcome such anomalies a budget must differentiate between sustainable and non-sustainable activities. Budget should consider and focus on the social, economic, cultural and environmental practices of a country. The political economy of environmental crises should also be counted. It must be remembered that agriculture is still the basis of development in Bangladesh. Economic growth is not necessarily good if a country has to compromise with its natural environment and the future generation has to pay the price as a consequence.

Lessons have not been learnt from the negative consequences of dependency on the 'top down' approaches or on the models of developed countries and thus we have been continuing with practices based on such past experiences. We must look for the alternative views of development based on prudent local level decision making. Budget should focus on the local governance of rural agro-based economy with a special focus on protecting natural forests including all species of 'natural community'. The use of much discussed 'climate change funds' from different sources need to be revisited in this regard.

The writer is a professor and coordinator, Centre for Disaster and Vulnerability Studies (CDVS) in the Department of Sociology, University of Dhaka.
Email: mahbubamirza@gmail.com

THIS YEAR'S THEME 'FOREST: NATURE AT YOUR SERVICE'

Indoor plants also at your service

In future, we will be cleaning up environmental pollution with plants. Right now, add houseplants to each room to clean the air you and your family breathe.

DR. AHMAD KAMRUZZAMAN
MAJUMDER AND K. M.
NAZMUL ISLAM

INDOOR plants not only look help but also the air to clean fantastic. National Aeronautics and Space Administration (NASA) research demonstrates the efficacy of



plants as indoor air cleaners. Indoor plants reduce unhealthy pollutants and airborne bacteria, fungi while adding the humidity needed to combat respiratory and allergic conditions. Many pollutants are chemical compounds that are released into the air through a process called



"off-gassing". It is often difficult to completely control the indoor climate in an office or home.

Indoor environment

Plants have been proven to remove airborne harmful contaminants. Most people spend the majority of time indoors at home or work. Air conditioning, improved insulation, and energy-saving all reduce air exchange in buildings, so we breathe the same air again and again. Because the modern internal environment is virtually hermetically sealed and the



construction materials used, modern synthetic furnishings, computers, electrical equipment, and everyday household products such as cleaning material, can produce harmful substances that are trapped inside the building. These all contribute to the well recognized "sick building syndrome". Polluted indoor air, contaminated by volatile organic compounds (VOCs), are a major cause of headache, nausea, sore and itchy eyes, loss of concentration and other "sick building" symptoms. The simple addition of interior plants is a natural way to help remove these pollutants significantly. Not only do they put water vapor back into the air, they also absorb heat and filter dust and harmful substances out of the air.

Studies by the NASA prove that plants not only beautify indoor environments, they make them healthier to live in. NASA also studied the benefits of plants for use in future space stations and closed

environments. Properly designed indoor planting can provide an inexpensive, refreshingly low-tech means of removing pollutants from the air in offices and homes. Virtually every tropical indoor plant and many flowering plants are powerful removers of indoor air pollutants. It is a scientific fact that the presence of plants keeps people calmer and makes them feel good. Plants encourage a positive work atmosphere, which in turn leads to better performance. Plants also improve the quality of the indoor environment, and consequently the health of the personnel.

Effects of plants on indoor environment

Plants reduce the concen-

Pollutant	Source	Solutions
Formaldehyde	Foam insulation	Azalea
	Plywood	Dieffenbachia
	Particle board	Philodendron
	Clothes	Spider plant
	Carpeting	Golden pothos
	Furniture	Bamboo palm
	Paper goods	Corn plant
	Household cleaners	Chrysanthemum
	Water repellants	Mother-in-law's tongue
Benzene	Tobacco smoke	English ivy
	Gasoline	Marginata
	Synthetic fibers	Janet Craig
	Plastics	Chrysanthemum
	Inks	Gerbera daisy
	Oils	Warneckei
	Detergents	Peace lily
Trichloroethylene	Dry cleaning	Gerbera daisy
	Inks	Chrysanthemum
	Paints	Peace lily
	Varnishes	Warneckei
	Lacquers	Marginata

tration of carbon dioxide and other substances potentially harmful in high concentrations, such as formaldehyde and benzene. This filtering helps to minimise contaminated air, so leaving indoor air fresher. Plants also increase the "thermal comfort" as they help to cool down the office area through evaporation and by providing shade.

Plants and associated soil micro flora can be used as effective air filters which remove and absorb toxic Volatile Organic Components (VOCs) from indoor air. It is possible to improve indoor air quality by using a specially screened plant combination which efficiently removes toxic compounds from ambient air. Plants can provide an effective way of decreasing mycotoxins concentration in indoor air by destroying bacteria and fungi. Begonia and geranium were shown to decrease air microorganism content by 43%, small flowerish chrysanthemum by 66%.

Numerous studies have shown that looking at plants and other natural elements reduces stress levels. It has also emerged that a view of greenery stimulates the recovery of hospital patients. Some benefits of indoor plants are: Absorption of carbon dioxide and emission of oxygen refreshing the air, absorbing harmful substances and filtering out dirt and dust from the air, keeping the atmospheric humidity levels up, providing a cooling effect, reducing stress levels, lifting the general mood, encouraging better performance, increased positive feelings and reduced feelings of anxiety, anger and sadness, faster recovery from mental tiredness, reduction of sound levels, reduction of absenteeism at the workplace, improved image --



interiors are perceived as more expensive.

Effective Use of Plants

Different types of plants have different positive characteristics. Some purify and some humidify the air. Below is a chart of the plants that most effectively removed pollutants from the air in the NASA study:

Where and how to place
When positioning plants, be strict in a balance between light and ventilation because the effect of



plants on indoor air pollution appears to be reduced if they are set in a draft. One plant should be allowed for approximately 10 square yards of floor space, assuming average ceiling heights of 8 to 9 feet. This means that we need two or three plants to contribute to good air quality in the average domestic living room of about 20 to 25



square yards. The more vigorously they grow the better job they'll do for you. Keep the air moist by misting plants. Avoid locations in the rooms where there are drafts or sudden temperature changes. Pollutants are absorbed through the leaves, so keep the leaves clear of dust by wiping gently with a damp cloth.

Conclusion

In future, we will be cleaning up environmental pollution with plants. Right now, add houseplants to each room to clean the air you and your family breathe.

The writers are assistant professor and lecturer, respectively, Department of Environmental Science, Stamford University.

There will be a special page on World Environment Day tomorrow.

Forests are at our service, but we...

ABDUS SATTAH MOLLA

THIS year, the World Environment Day (WED) is celebrated under the title and theme "Forests: Nature at your service" in order to draw attention to the plight of forests all over the world. The theme complements the focus of the UN International Year (2011) of Forests.

The benevolent roles of forests for human beings, most animals, and the over all world ecosystems can hardly be overemphasised. Forests provide home to more than 300 million people worldwide, and over 1.6 billion people depend on forests directly for their livelihood. Forests are essential for the wellbeing of the animals (that directly or indirectly depend on green plants). They are a critical element of the Earth's ecosystem. In addition, forests are home to 80% of terrestrial biodiversity. But are we doing justice to this part (forest) of nature that is always at our service? What we are doing goes against nature, and thus we are failing to repay our debts to mother earth.

This year's June 5 global program is hosted by India. But this big neighboring country of ours is also doing much harm to the forest ecosystem. According to UNEP, India's 1.2 billion people continue to put pressure on forests especially in densely populated areas where people are cultivating on marginal lands and where overgrazing is contributing to desertification.

However, the Indian government has found some solutions to the undue pressure on forests by embarking on tree-planting to combat land-degradation and desertification, including windbreaks and shelterbelts to protect agricultural land. The country has successfully introduced projects that track the health of the plants, animals, water and other natural resources, including the Sunderbans -- the largest deltaic mangrove forest in the world and home to one of India's most iconic wildlife species -- the tiger.



More harm is done to forests due to greed, corruption, and incompetence of the protectors.

India has also launched a compensation afforestation programme under which any diversion of public forests for non-forestry purposes is compensated through afforestation in degraded or non-forested land. The funds received as compensation are used to improve forest management and the protection of forests and watershed areas.

Bangladesh is located in the north subtropical belt of the world, and thus was the natural home of both evergreen and deciduous forests harbouring many fauna including the Royal Bengal Tiger spread over many areas, now confined only to the Sundarbans. Due mainly to undue privilege that, our own species -- homo sapiens -- have been enjoying by reproducing at geometrical rates in this small country has created heavy pressure on the land's entire ecosystem including the forests. From about 20% of the area in pre-independence years, forest cover of the country has now dwindled to about 7%.

Forests of the entire Bhawal-Modhupur tract have now almost disappeared. Forests in the CHT and Sylhet areas and in the Sundarbans have shrunk consid-

erably. Whatever remains suffers degradation. Even the reserve forests are now under threat.

However, as this year's WED host country India has been trying for reforestation and afforestation, Bangladesh is also not sitting idle. Every year, our head of the government inaugurates on June 1 the annual tree-plantation programme centrally that encourages both reforestation and afforestation throughout the country. But we have some wrong choice of plant species and varieties: many are addicted to exotic plants that usually do much harm to our ecosystem. The "social forestry" project had much potential, but we could not use this for betterment of our forests; instead we further degraded the situation through planting alien tree species like Eucalyptus, Acacia etc.

More harm is done to forests due to greed, corruption, and incompetence of the protectors. In the name of "development" of forests, misguided projects, such as construction of eco-parks, have been taken up, mainly to misappropriate project money. These misguided projects have disrupted both the flora and

fauna of the forests and the life and livelihood of the local people both in the hills and the plains.

The most serious crime to our forests, and even to the reforested areas, especially in the coastal belt, is done by political goons who cut trees and clear the place for grabbing it for some 'industrial purposes.' Such unpardonable crimes are committed to the forests, and transplanted trees during these days of democracy -- it is simply unbelievable.

Since deforestation and degradation of forests are taking heavy tolls on the country's overall environment. Some steps need to be taken urgently by both the "serving" government and the mass people at large. I would like to put forward the following suggestions for regaining at least a part of our forest in the natural setting:

- The family planning program that was doing well earlier must be rejuvenated as soon as possible. Population must be kept controlled in this small country. This single step can save much of our flora and fauna including the forest.
- The nation's utility services must be spread over the country through decentralisation; thus the craze for living in the capital and/or divisional cities will lessen. This will decrease the undue pressure on natural ecosystems in or nearby areas of the cities, and thus trees would have chances to live along with other flora and fauna.
- The plant varieties for reforestation, afforestation etc. must be chosen mostly from our indigenous species, realising that every geographical area of the Earth has some specific natural characteristic; we have got no right to play with that.
- Lastly, our politicians need to grow better human qualities. They and especially their younger followers (who don't count trees as living beings at all) must shun the "seasonal business" of making money by any means including indiscriminate felling of trees.

The writer is a biologist and senior specialist, NCTB, Dhaka. Email: asmolla61@yahoo.com