

# ONE INDIA ONE PEOPLE

Patriotism Redefined



## Conserve... or perish

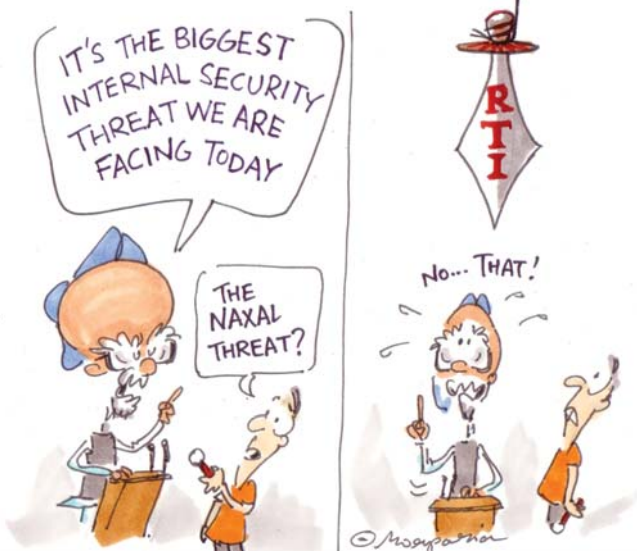
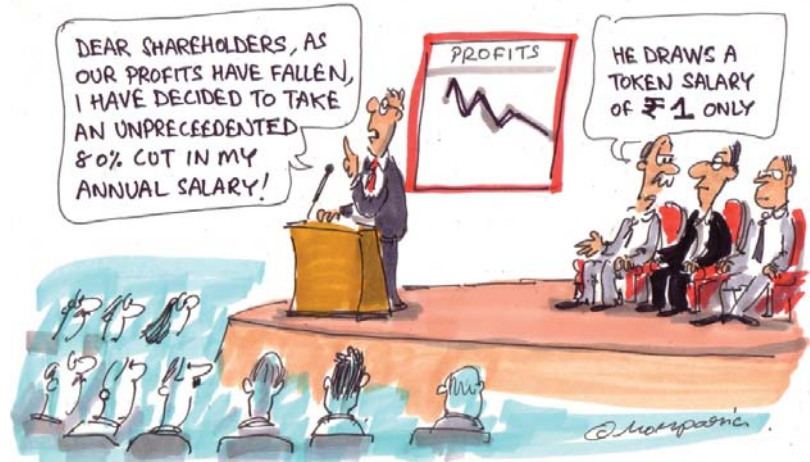
Every drop counts!

**Withering wildlife**

**KNOW INDIA BETTER**  
Romancing the lake city

**FACE TO FACE:** Shubha Benurwar

# MORPARIA'S PAGE



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JULY 2013

VOL.16/12

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Shubha Benurwar

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## LETTERS TO THE EDITOR

### Inspiring magazine

I went through the June 2013 issue of the magazine. It was truly inspiring to see a magazine addressing such important and often neglected issues. The articles were well distributed with a diverse mix of knowledge, views, humour and emotions covering so many current developmental and cultural issues. The articles were very insightful. From before reading the magazine to now, my knowledge base has expanded from superficially knowing about MNREGA, IAY, Right to housing, UIDAI, to actually knowing what these schemes entail and the issues therein. I found most of the articles I read very thorough and well researched. The 'Young India' section led me to research the works of Anish Kapoor and I was enchanted by his brilliant and daring works. Reading about Shakuntala Devi gave more backing to my proud Indian mentality. I think the Know India Better, Great Indians and Young India sections work wonders in the proud Indian factor.

I felt Shoma A. Chatterji's piece on mother tongue is very relevant today. We notice that many in today's generation look at speaking in their mother tongue as somewhat inferior and they prefer to use English in all conversations, within family or outside. With quite a few of these local languages not having written forms and being propagated through centuries only by way of speech, it spells extinction. When today's generation isn't willing to use their mother tongue, the next generation won't even know that such a language existed. This is leading to us eroding our own language heritage.

The piece on gender equality by Anuja Gopalan struck a chord. It was passionate writing. Inequality of the sexes is ingrained in our cultural fabric. People will bow down before females in the form of Saraswati and Kali but the thought of treating women as equal to men somehow doesn't go down well with them, it hurts their ego, as though their status will be reduced if women become equal to men. The root of all this is the patriarchal system. Even in the most modern of families, we do see glaring examples of this differentiation. I think the faculty of marriage itself is an indicator of this. The woman has to leave her house, her parents and go and stay with the man. Since the girl is going to leave the house in a few years and not contribute much to the household, obviously she'll be thought of as a 'bojh' by the parents, especially in areas where the system of dowry is prevalent.

All in all, the articles were very informative and I was glad at having read them. It opened my mind to issues I didn't even know were issues, for instance, the glitches in Aadhar system. There was a mix of positive as well as critical outlooks on the issues which was good to see.

– Srishti Agrawal, Mumbai

### Fear of audit cannot be the reason for failure of a scheme

Congratulations to OIOP for its June 2013 issue (*What ails Government schemes?*) for an excellent exposition of why Government schemes fail. Special congrats to Dr. Leena Mehendale for explaining in very simple terms, the process failures at each and every point of Government schemes from design and planning phase till execution. I, as a former public auditor under the CAG of India, would like to point out that fear of audit cannot be mentioned as a reason for a scheme to fail. Audit is a machinery which helps take corrective action from the beginning. For instance, audit inspection conducted yearly for most important schemes do point out spending and execution irregularities, at the subordinate levels. If this is acted upon timely, a number of factors which impede execution can be avoided. Moreover, as the author has pointed out correctly, political greed, bureaucratic apathy and rampant corruption can be avoided, if participation from all stakeholders is made compulsory in all the scheme guidelines. Mere monitoring by officials is not enough. Hope OIOP will bring up more such topics in future.

– Nandini Y. Kapdi, IA& AS (Rtd.), Mumbai

### Clarification

Please refer to my article 'Good intent, lackadaisical implementation' in the OIOP, June 2013 issue. I would like to bring to your notice that IGNOAPS (Indira Gandhi National Old Age Pension Scheme) is no more only for destitute aged living below poverty line, instead it is for all elderly living below poverty line. I have used the term 'destitute' only where it was required in the article, but in the introductory paragraph where I am quoted, there it is mentioned that IGNOAPS aims at providing financial security to destitute aged living below poverty line. Also the caption of the photograph for this article mentions the word destitute, and at one place in the text (first paragraph of article) again this term is mentioned, which I have not mentioned in that paragraph. Though literarily, these terms seem to mean same thing, I am a bit cautious about using it interchangeably because the concerned ministry currently uses the term elderly BPL and not destitute.

– Dr. Nidhi Mishra, Mumbai

The error is regretted. – The Editor

# Hail to wildlife conservation

*We, Indians, are very good at conserving natural resources in our own unique way. V Gangadhar is mighty impressed with the concern shown to wildlife, water woes and other conservation issues by politicians, Bollywood, and also the common man.*

It is indeed remarkable how efficiently we conserve our natural wealth. Take for example, water conservation. By not changing the city's drainage system for more than 150 years, we conserve so much more water particularly during monsoon when it is 'Water, water, everywhere'. I don't know much about Venice and its canals and gondolas, but without any such paraphernalia, we conserve a lot of water in Mumbai. We are lucky to have political leaders who are concerned so much about water conservation. When people complained about water shortage at a village dam site, the state deputy chief minister Ajit Pawar, had retorted if he was expected to urinate at the site to solve the water problem. What a brilliant suggestion which overflowed with concern for water conservation! Our wildlife conservation has also been quite remarkable. Recently the 'Times of India' published a news report with a photograph of a man walking along with something which looked like a dog in suburban Bandra. The dog attracted attention because it did not look like one. People gathered, demanded a closer look and in the meantime the man escaped. Later it was confirmed that the animal was a

jackal and not a dog. The man had obviously caught it in the forest, kept it as a pet so that it became tame and friendly and could be taken for walks. To convert a jungle beast like a jackal into a docile domestic pet dog was indeed remarkable and comes high in our wildlife conservation achievements. With such commitment to wildlife conservatism, the day is not far off when men and women in India would be seen walking with lions, tigers, hyenas, converting what were presumed to be wild animals into domestic pets. An ultimate achievement in wildlife conservation!

Look all around, you see nothing but concern for animal welfare. Party politics in India could be bitter and nasty but we don't see it in our concern for wildlife. Gujarat Chief Minister Narendra Modi and Madhya Pradesh Chief Minister, Shivraj Singh Chauhan are staunch BJP men. Gujarat offered the only

sanctuary for the Asian Lion at its Gir forest but the forest officials felt that part of the Lion pride could be transferred to MP. Even court judgments favoured this case. But Modi was so much concerned with wildlife conservation that he refused to part with even a single lion. The MP CM who was equally concerned with lion welfare, was insistent that his state must get some of the lions. People who knew Modi intimately said that he had prime ministerial ambitions and if they were

realised, Modi planned to reach Delhi in a chariot drawn by Gir forest lions, so that he could cock a snook at Advani's old fashioned car-converted-into-chariot.

The crisis-ridden BJP leadership was happy that there was unity on one count. Two of its popular chief ministers had proved themselves to be wildlife conservationists of the highest calibre and both could be named 'Singh Khans', the only problem being the Muslim link with the name Khan. But this could be resolved and both the leaders suitably rewarded.

Every aspect of Indian wildlife conservation invariably is connected with politics and leaders. Watch out for the political discussions

on TV channels. Night after night, along with channel anchors, leaders of political parties, snarl, scream, howl and hiss at one another. The keeper of Chicago Zoo, the biggest in the world, admitted he had seen nothing like this in his country's TV news debates. "Maybe you guys, cared more for your wildlife than we ever did and featured them on TV every night. Remarkable!"

Mind you, we cannot afford to ignore the role of Bollywood in wildlife conservation. How can we ever forget films like *Haathi Mere Sathi*, *Gai aur Gauri*, *Hippo aur Haribhai*, *Oont ka Amar Prem*, *Saap aur Sita* and so on. The viewers agreed that the wildlife were better actors than the human stars. ■



The writer is a well-known satirist.

Every aspect of Indian wildlife conservation invariably is connected with politics and leaders. Watch out for the political discussions on TV channels.

# The greed that is killing biodiversity

*Today, people's lives are increasingly becoming far removed from biodiversity and with the pressures on biodiversity increasing manifold, the very future of these ecosystems and species is deeply threatened, says Kanchi Kohli.*

I was dazzled, and it was not just the aesthetics of the seed collage which women farmers from Deccan Andhra had displayed with pride. They were both seed keepers and extremely innovative farmers growing a mix of millets, oilseeds, chickpeas in small patches of land. They displayed over 60 variety of seeds that they have stored over years, so that there is food self-sufficiency in the village, and natural farming techniques passed on over the generations are not just sustained, but also restored (*where they are lost*).

## Biodiverse farming

Just like these women farmers, many others all across India and the world practise farming which is not monocultural in its approach and cultivation. What they believe in, is farm diversity both in their techniques and seed varieties they use. Up in the north, in the hills of

Uttarakhand, farmers have traditionally cultivated 12 crops on one piece of land: *Baranaja* they call it. Be it the *Beej Bachao Andolan* (Save the Seeds Movement) or many other farmer's organisations, they do this because it gives them both food security and freedom from external markets. They conserve and cultivate a wide range of crops, be it beans, vegetables, fruits or grains. One critical logic behind biodiverse farming is that if one crop amongst the many fails, the other would definitely survive the multiple vagaries of weather, markets, etc. That is important to ensure that there is enough food available.

While agricultural ecosystems such as the above are biodiverse

even through human interactions, one can just imagine what there must be in the wild and relatively unexplored territories, some even devoid of human presence. Be it the large mammals like tigers or elephants or the huge diversity of the birds, reptiles and even micro-organisms; all are a part of an

ecosystem which gives them life, and their interactions with these ecological habitats give to them, their shape and importance. In wildlife, these species of fauna go along with a wide spectrum of flora which makes the tropical rainforest look and behave completely different from open scrub forests or the Himalayan alpine pastures.

## Biodiversity - a magical space

And then there are the lesser talked about habitats, both the sandy desert and the coasts, where one can witness a vibrancy of life

forms. At the same time, they have enough to offer for the seeking mind. Why do the inter-tidal stretches in the Gulf of Kutch give us completely different varieties of fish than what would be available further south on the Kerala coast? Why is that, marine sea turtles of a certain species only come to the Bhitarkanika coast in eastern India to lay eggs year after year? There is some of this which we can understand, and some which is way beyond human comprehension even today. It is a haven of exploration for researchers and lifeline for communities living near this diversity of life.

The myriad complexes of species, habitats and their interactions are what has come to be known as biological



**We, humans, need to respect the myriad complexes of species, habitats and their interactions, what is known as biological diversity**

diversity; or simply the diversity in life forms. This diversity transcending both wild and domesticated landscapes spreads across deserts, mountains, coasts, wetlands, grasslands and many other ecological systems. Human associations with biodiversity have also over years evolved into spiritual, cultural, economic and social forms which present themselves in rituals, trading, festivals and food habits. All of this has also led to the development of knowledge, practices and livelihoods that continue to remain deeply integrated with the existence of biological diversity in and around living spaces.

What is important to understand is that biodiversity is not just a rural or distant phenomena. It even exists in the densest of urban settlements. When one notices a huge Banyan tree in the middle of a city housing colony, a lake bang in the middle of a fast developing metropolis or a river flowing through the heart of cosmopolitan India; it is what represents biodiversity. The Delhi's Ridge, Mumbai's Borivili National Park or Kolkata's Botanical Gardens are all significant for sustaining diversity in our lives.

### Conserving biodiversity – a neglected cause

But even as we continue to first understand the importance of biodiversity and celebrate its existence, one cannot help but acknowledge two critical facts: that people's lives are increasingly becoming far removed from biodiversity and that very future of these ecosystems and species is deeply threatened. How many of us know that India is one of the 12 mega biodiversity countries in the world? Why is it that many of us have not experienced even 5 percent of the approximately 100 *rajma* (red kidney bean) varieties grown in the country or the thousands of rice varieties that continue to be cultivated in the country? Why is it that cities don't hear the croaking of frogs anymore in the monsoons?

The last decade and a half has also seen the upsurge of huge investments into India, seeking to establish operations for mining, power generation, infrastructure expansion and so on. What each one of these activities requires is the use of land, water and eco-scapes, which in turn come under severe stress of destruction or degradation. The sprawl of ports on the coasts have wiped out mangroves and inter-tidal areas; forests have been cleaned up and felled so that mining and thermal power generation can take place and close to 17 dams are being planned for one river and its tributary to ensure that its water flows through tunnels created by the dam design rather than free from encumbrances.

### Conservation for our own future

Laws and regulations which were to ensure that environment impact assessments (EIA) are carried prior to any approvals, have to say the least, failed. There are many stories of these assessments having being rendered incomplete and even for some far-fetched reason they do mention the importance of biodiversity in the area, it is replaced by the logic that a high profile investment is important to be traded off. A classic example of this is the environmental approval given to the Jaitapur Nuclear Power plant in Maharashtra where the 28 November 2010 order of the earlier Minister of Environment and Forests, Jairam Ramesh clearly says, *"On the one hand there have been many issues raised on the preservation of marine biodiversity, an area in which India has been very weak. But at the same time there are weighty strategic and economic reasons in favour of the grant of environmental clearance now."* Conserving biodiversity becomes clearly subservient to the reasons stated upfront by the minister in this letter.

It is a given today that the pressures on biodiversity are increasing manifold. The existence of agro-biodiversity is not even a consideration when it comes to project and investment approvals. Human beings are refusing to acknowledge two critical questions: one of the inter-species equity where the lives of other living beings needs to be respected and ethics of human supremacy on all ecosystems be checked; and two that we as humans, need to acknowledge we have a very bleak future if we continue to destroy biodiversity and its habitats at the pace that we are. The forests which support a diversity of species are also origins of rivers; the mangroves and sand dunes on the coasts. These protect us from disasters like the Tsunami and it's our agrobiodiverse farms which ensure there is nutrition on our plates, not just food grains.

I end drawing strength from Cree India philosophy that sends an apt message to us on the urgent need to protect biodiversity habitats and species. It says: *"Only after the last tree has been cut down, only after the last river has been poisoned, only after the last fish has been caught, only then will you find that money cannot be eaten."* ■



The writer works and writes on environment, forest, and biodiversity governance issues. In her writing, she seeks to explore the interface between industrialisation and its impacts on both local communities and ecosystems.

### Maxim

*By plucking her petals, you do not gather the beauty of the flower.*

– Rabindranath Tagore

# Every drop counts!

*Water conservation entails harnessing of the available water resources for the best beneficial use with all the technological and policy measures at command.*

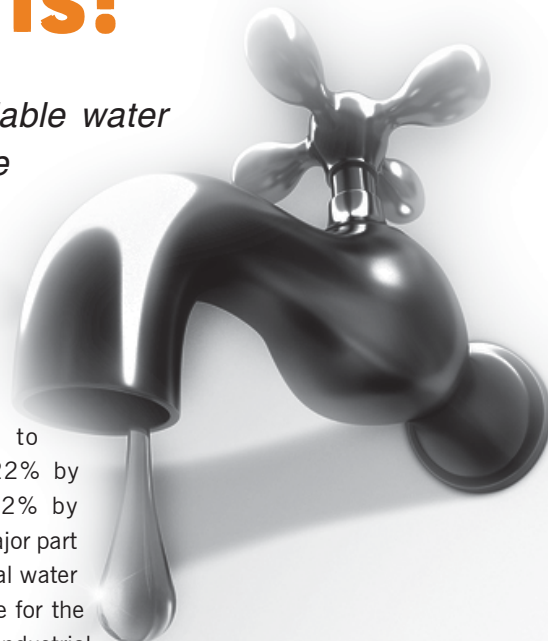
*Reduce, recycle and reuse should be our mantra, says **Dr. Arvind Kumar**.*

INDIA, which is home to 16% of the world's population, has only 2.5% of the world's land area and 4% of its water resources. Precipitation in the form of rain and snowfall provides over 4,000 trillion litres (TL) of fresh water to the country. Most of this freshwater is carried out to the sea and ocean via the many large rivers flowing across the subcontinent. A portion of this water is absorbed by the soil and is stored in underground aquifers.

A much smaller percentage is stored in inland water bodies including natural lakes and ponds and man-made tanks and reservoirs. According to broad estimates, out of the 1,869 TL of water reserves in the country, only an estimated 1,122 TL can be utilised due to topographic constraints and distribution issues. Furthermore, the past few decades have witnessed rapid increase in demand for water. India's current water consumption is approximately 581 TL, with irrigation needs accounting for a staggering 89%, followed by domestic use at 5% and industrial consumption at 6%.

Viewed in a broad spectrum, the total water

demand is projected to increase by 22% by 2025, and 32% by 2050 and a major part of the additional water demand will be for the domestic and industrial



**Using less water also puts less pressure on our sewage treatment facilities, and uses less energy for water heating. Saving water also saves energy.**

sectors. The water demands of the domestic and industrial sectors will account for 8% and 11% of the total water demand by 2025 and by 2050 these shares will increase to 11% and 18%, respectively. Moreover, the domestic and industrial sectors will account for 54% of the additional water demand by 2025, and more than 85% by 2050.

Water is a finite source and additional water demand can be met only through water conservation, rainwater harvesting and recycling of waste water for reuse. Broadly speaking, water conservation is a comprehensive term that encompasses efficient use of water, recycling of waste water for reuse and water conservation through

rainwater harvesting.

## The 3Rs of Water Conservation

Water conservation entails harnessing of the available water resources for the best beneficial use with all the technological and policy measures at command. It is based on 3Rs – reduce, recycle and reuse. In other words, it refers to reducing the usage of water, recycling of waste water and reuse of waste water for different purposes such as cleaning, manufacturing and agricultural irrigation.

Apart from being an action warranting a device or technology or improved design or process implemented to reduce water loss, waste, or use, water conservation also emphasises on behavioural change of the user. Water efficiency is a tool of



**Water Shed (Jalkund) at Cherrapunjee region developed by Water and Soil Department, Meghalaya Government**

water conservation that culminates in more efficient water use and thereby leading to reduction in water demand. The urgency for water conservation in Indian context assumes immense significance in view of the fast depletion of groundwater resources, pollution of surface water resources and rapid pace of melting of Himalayan glaciers. Water conservation is the most cost-effective and environmentally sound way to reduce our demand for water. Using less water also puts less pressure on our sewage treatment facilities, and uses less energy for water heating. Saving water also saves energy.

Necessity for water conservation arises for restoration of the fast deteriorating ecosystem and to meet the inevitable emergency of shortage even for drinking and domestic water needs in the near future. It also aims at envisaging a semblance of equilibrium between demand and supply. Undoubtedly, water resources are 'renewable' through hydrological cycle, nevertheless, what is renewable is only the quantity, but pollution, contamination, climate change, temporal and seasonal variations have affected the water quality and reduced the amount of 'usable water'.

Water conservation is helpful in ensuring sustainable supply of water. It also helps in conservation of energy because about 15% of total electricity consumption is devoted to water management in the form of water pumping, delivery, and wastewater treatment facilities; and water conservation could lead to less consumption of energy. Water conservation through minimising human water use can lead to 'Habitat Conservation' thereby helping to preserve fresh water habitats for local wildlife and migrating waterfowl, as well as reducing the need to build new dams and other water diversion infrastructures.

### Water conservation strategies

The strategies for water conservation can be demand-oriented or supply-oriented and/or management-oriented. These strategies may vary depending upon the field of water use that can be domestic, for irrigation or industrial.

#### Domestic sector

Water saving for domestic purpose can be facilitated through low-flow shower heads, dual flush toilets that use up to 67% less water than conventional toilets, using harvested rain water for flushing toilets; faucet aerators - which break water flow



**Chera Eco Projects nursery for plantation in Cherrapunjee**

into fine droplets to maintain "wetting effectiveness" while using less water, using high-efficiency clothes washers, using low flow taps in wash basins and automatic faucet. Capacity building of the residents with the help of RWAs (Residents Welfare Associations) for water conservation is necessary to create awareness to make basic attitude change.

#### Agricultural sector

Agriculture is the biggest consumer of fresh water and appropriate water conservation in agriculture sector is direly needed. Accordingly, water saving in agricultural sector can be facilitated by means of reducing the flooding type system by adopting sprinkler/drip type systems, planting water-efficient variety of crops, by use of soil moisture and rainfall sensors to optimise irrigation schedules. Besides, large gains in efficiency are possible through measurement and more effective management of the existing irrigation system.

#### Industrial sector

Industrial sector in India is the second largest consumer of water. Industrial water use can be grouped into three main categories: heat transfer, power generation and use in industrial processes. Water conservation and water use efficiency in industrial sector can again be facilitated through 3R's: Recycling of waste water, Reuse of recycled water and Reduction in consumption of water. Two basic activities of measuring the amount and monitoring the quality of the water

(Continued on page 12)

### Festive times

*Van Mahotsava or the festival of trees is held throughout India in the first week of July. As the name suggests, the festival aims at celebrating the presence of trees around us. This week, organisations and nature lovers organise tree plantation drives to encourage the conservation of forests and environment. It was K.M. Munshi, noted nature enthusiast and former Cabinet Minister, who launched Van Mahotsava in 1950, to promote awareness about conserving environment by planting trees as "trees mean water, water means bread and bread is life".*

# Withering wildlife

*Extinction of species is the barometer of a crisis that will ultimately impact on the economy and the viability of the Indian nation. Yet, there is virtually no national preparedness to tackle the imminent ecological crisis that looms large, rues **Bittu Sahgal**.*

**B**Y radically altering natural ecosystems and now even the climate that governs all life on earth, we are forcing species into extinction at an unprecedented rate. In the last decade, reports have started to come in from around the world of birds migrating weeks earlier than usual in spring and of plants and birds moving to higher reaches in the mountains. Scientists are alarmed at the manner in which certain temperate insects, amphibians, reptiles and even intertidal invertebrates are moving gradually north. Sea level rise is no longer a hypothetical issue. The consequences of such changes on tropical countries such as India have not been properly studied, but these are sure to affect our ecological security. Instead of making it our national purpose



**Poaching for rhino horn and habitat degradation still put Indian one-horned rhino at risk**

to ward off the damage that is likely to be caused by reasons outside our control, India has instead chosen to accelerate the destruction by loading ecosystems with toxics, mining and damming forests and by cutting roads through fragile areas. It is suggested by those who perpetrate such damage that losing 'a few species' cannot result in serious harm. Scientists suggest however that by causing even a few species to go extinct, we affect the course of evolution for all species. Ultimately this has to impact the long-term survival of Indian people who depend more on the productivity of natural India to feed them than their government. Increasingly, field biologists are noticing an ecological crisis of unparalleled

proportions. Species-extinction is the barometer of a crisis that will ultimately impact on the economy and the viability of the Indian nation. As of now there is virtually no national preparedness to tackle the imminent ecological crisis that looms large.

## Poaching- a major threat

The plight of the **royal Bengal tiger** has been written about time and again and yet India has not be able to safeguard her national animal. Mines, hydroelectric projects, roads and other industrial projects are causing habitat and wildlife corridor destruction, which in turn are leading to isolated, ultimately unviable tiger populations. Poaching continues to be a major threat. To survive, the tiger needs safe, large areas of healthy habitat – sufficient water, good prey base and cover for hunting. If we are to ensure the future stability of India's tigers and indeed of all of our wildlife, the first step is to ensure that ground-level protection is strengthened and that forest guards are well-equipped, trained and legally empowered. While core areas must be free from all human activities, community-based sustainable development and conservation programmes must be encouraged. Under no circumstances must rules be altered to allow destructive activities such as mining, hydroelectric projects, etc., to affect Protected Areas. Where applicable, relocation of villages must be encouraged.

Another big cat that is under threat is the Asiatic lion. Cement



**Though the plight of the royal Bengal tiger has been written about time and again, India has not be able to safeguard her national animal**



**Sarus Crane is fighting a losing battle against changing land use patterns, encroachment and degradation of wetlands for agriculture and infrastructure projects**

factories, limestone mining, encroachments, poisoning by locals, religious tourism, poaching and bad land management in the adjoining areas continue to plague this cat in its last remaining home – the Gir National Park in Gujarat. The recent Supreme Court decision asking the Gujarat Government to relocate some of the lions to the Palpur-Kuno Wildlife Sanctuary in Madhya Pradesh will help to prevent dilution of the gene pool due to inbreeding and provide a back-up plan in case the isolated Gir population succumbs to disease.

A fragmented population of the charismatic **snow leopard** survives in the wild. A declining prey base – the result of habitat destruction and disturbance – has forced it to search for alternate food in the form of domestic livestock. The snow leopard is viewed as an arch predator by locals who do not hesitate to trap, poison or shoot the animal. Herders are also increasingly moving into the snow leopard's territory in search of new pastures. Reports also show that the snow leopard is being killed for its bones as substitutes for tiger bones in Traditional Chinese Medicine (TCM). No one has yet ascertained how climate change will impact these high-altitude predators.

Habitat destruction, obstruction of migratory corridors, poaching and human-animal conflict are all serious threats to the **Asian elephant**. The number of deaths due to railways and roads through elephant habitats are on the rise. Encroachment of forest areas for agriculture has led to increasing human-animal conflict. Elephants need undisturbed forested areas with sufficient water supply. Project Elephant needs to be re-activated.

Meanwhile, though strict protection had helped in the population recovery of the **Indian one-horned rhino** in a couple of Protected Areas, poaching for rhino horn and habitat

degradation still put them at risk. Conversion of forest land for agriculture and tea plantations, logging, lack of proper management of their grassland habitat, floods and political instability continue to plague the rhino.

The storyline reads similarly for most of our wildlife – whether it is the Indian grey wolf, Himalayan wolf, Asiatic wild ass, golden langur, the hangul or Kashmir stag, wild buffalo, lion-tailed macaque or the red panda — habitat loss due to agriculture and development projects continue to jeopardise their survival.



**Populations of vultures belonging to the Genus Gyps have suffered a sharp decline**

### **The battle for survival**

The future of our aquatic fauna is literally at the precipice.

The Irrawaddy dolphin, for example, is impacted by harmful fishing techniques that impact its prey – fish populations. Freshwater and marine habitat destruction as well as fishing bycatch and pollution must be discussed as priority issues.

A whole range of reptiles and amphibians from the Himalayan newt to the gharial are also highly endangered.

In the last few decades, India has gained recognition as a birding destination. However, our birds are directly impacted by the loss of wetlands, marshes, floodplains and our forests. Though it has adapted to the presence of humans, the **Sarus Crane**, for example, is

fighting a losing battle against changing land use patterns, encroachment and degradation of wetlands for agriculture and

**While core areas must be free from all human activities, community-based sustainable development and conservation programmes must be encouraged.**



**Only a fragmented population of the charismatic snow leopard survives in the wild**



**Habitat destruction, obstruction of migratory corridors, poaching and human-animal conflict are serious threats to the Asian elephant**

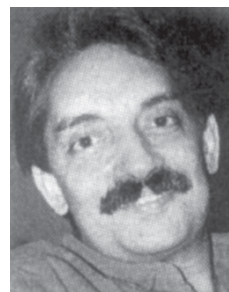
infrastructure projects. Other threats include agricultural runoff, pesticide poisoning and sewage runoff. The future of this bird depends on the health of its wetland habitats. Fragmentation of habitat, encroachment for agriculture, increased usage of pesticides and overgrazing by livestock have also caused the numbers of the **Great Indian Bustard** to dwindle rapidly. Protection and proper management of grasslands must be initiated on a war footing if we are to save this species. Populations of **vultures** belonging to the Genus *Gyps* suffered a sharp decline thanks to the veterinary drug Diclofenac that caused fatal liver damage in the birds when they fed on the

carcasses. Loss of nesting trees due to logging also affects bird populations. So many other species such as the Forest Owlet, Nicobar Megapode, Bengal Florican are all fighting similar survival battles.

Our rich flora rarely finds mention in any conservation plans. Apart from logging, several plants, especially those with medicinal properties are overexploited and unless our government invents a severe regulatory mechanism to curtail this vast ranging small-scale trade, it will be impossible to save species such as Sarpagandha from extinction. Land-use patterns, *jhumming*, deforestation, over collection and exploitation of forest resources are also impacting many orchid species.

It is not possible to list all the species of flora and fauna that are endangered in one article – so many more could easily find mention here – the Nicobar tree shrew, pygmy hog, markhor, Arunachal macaque, hoolock gibbon, clouded leopard, marbled cat, dhole, Ganges river dolphin, Edible Nest Swiftlet, leatherback turtle; because a species has been left out does not indicate that it needs “less” protection. In a

sense, this article is merely indicative, and is aimed at helping readers understand that our wilderness areas and wildlife need our help – we must act now! ■



The writer is the Editor of Sanctuary magazine. His work today revolves around saving the tigers and the forests of India.

## Every drop counts!

(Continued from page 9)

are essential for effective implementation of 3Rs. Recycled waste water can be put to reuse for washing processes and also in cooling equipment that generates heat.

### Conclusion

Water conservation is an important tool for reducing water demand, and limiting water use should be an everyday practice for people and businesses. Water conservation may require changing old habits and re-thinking the way we do things. The recent decision of Union Ministry of Water Resources to observe 19 November as Water Conservation Day to create awareness about the need to conserve water is a laudable move.

Improvement in operation and maintenance is essential to stem huge loss of water. For developing water resources, traditional water conservation methods should be adopted in conjunction with modern conservation technology. Rain water harvesting should be made mandatory where applicable and

recycling of wastewater may be incorporated wherever feasible. Water audit should be conducted categorically in two systems, resource audit or supply side audit and consumption audit on demand side.

There is also need for capacity building of the people by sensitising, incentivising and galvanising them about water conservation. There is a need to activate local processes, energise people and institutions, towards process visibility of policies and practices related to water conservation. ■

The writer is the President of India Water Foundation, a non-profit organisation established to create public awareness at national level in India and sub-regional level in Asia, regarding water and its impact on human health, economic growth and environmental sustainability.



He is a renowned water activist, having provided new impetus to the water movement in India by disseminating knowledge on water-related issues with specific emphasis on Right to Water, Water Rights for Socially Excluded, Inter-Sectoral Convergence in Water Sector and Regional Water Diplomacy etc. He has also published over 200 research articles in recent years on national, regional and international issues in reputed journals.

# Marine conservation at sea

*The role of marine conservation in mitigating climate change due to global warming is significant, as the marine environment shelters the largest ecosystem on our planet earth known as the marine ecosystem, writes Dr. Anupam Ghosh.*

**M**arine conservation broadly is an activity based on the study/assessment of threat to the security of natural components found in marine/coastal ecosystem, through specific science and technology, and nowadays, policy and law - within the ambit of estuarine, coastal, onshore and offshore environment.

Marine environment significantly differs from land or terrestrial environment and is influenced by ocean, sea, gulf, bay and estuarine ecosystems. The marine ecosystem is therefore sustained by a continuing interactive process between all the living beings and their respective ambient physical environment. By land-water ratio of occupancy, the marine environment shelters the largest ecosystem known as marine ecosystem, on our planet earth.

## Importance of marine conservation

From various research findings it is established that different marine and related ecosystems provide at least one phenomenon in common and that is the release of oxygen ( $O_2$ ) which is a lifeline of all living beings. In the process, the plants and plankton take in carbon-di-oxide ( $CO_2$ ), which is released as a result of energy utilisation due to respiration of living beings or the consumption of energy by industry or the use of home appliances such as air conditioner/refrigerator; all of which we deem as our “civilization support system”. It is the same carbon-di-oxide ( $CO_2$ ) which is released during wars between nations.

A huge amount of carbon-di-oxide ( $CO_2$ ) is being retained in the atmosphere daily, due to industrial energy consumption. It is absorbed by a large population of coccolithophores, unicellular marine phytoplankton or foraminifera, macroalgae etc., that are ‘primary producers’ at the base of the marine food-chain found in the coastal waters and in the open sea. As carbonate producers these tiny organisms affect the global carbon cycle. Unfortunately, petroleum oil spillage (illegal not accidental) into the ocean system are destroying these planktons, who otherwise release huge quantity of oxygen ( $O_2$ ) as their daily photosynthetic activity and balance sub-systems of various marine and coastal ecosystems.

Carbon-di-oxide ( $CO_2$ ) is said to be the ‘most notorious culprit’ causing global warming at local and regional levels. So, the



**Petroleum oil spillage is destroying phytoplanktons who balance sub-systems of various marine and coastal ecosystems**

role of marine conservation in the mitigation of climate change due to global warming is important.

## Important issues concerning marine conservation

Some important measures in conserving marine life are:

- ❑ Prevention/mitigation of ocean acidification and local climate change
- ❑ Marine and coastal pollution (oil spill & land-based waste disposal)
- ❑ Overfishing and subsequent un-employment/under employment of fisher-persons
- ❑ Loss of biodiversity and coral bleaching
- ❑ Coastal erosion and un-scientific coastal development
- Development of:
  - ❑ Coastal habitat conservation in island and mainland coast
  - ❑ Coastal Tourism
- ❑ Appropriate policy not only for the protection of threatened and endangered species but also for further development of coastal resources management; and
- ❑ Also required are criminal and penal laws for mitigation of ocean acidification and other factors that harm marine ecosystem.

## Threats to marine environment/ecosystem

Threat to the security of surviving marine ecosystem appears

generally in the maritime countries at varying magnitude. The threat can be classified into (a) *direct* threat and (b) *indirect* threat. *Direct* threat describes the nature/property of the sources of threat to security of surviving marine ecosystem and/or its component(s) [not to be confused with the impact – the word generally used for environmental impact assessment (EIA)].

The *indirect* sources of threat, however, imply apparent hidden reasons in corroborative continuation of the entity of *direct* threat to security of the marine ecosystem which in many coastal nations of the world are caused either by the lack of existence of proper/appropriate machinery/measures to eradicate such threat(s), or intentionally making such machinery defunct where such measures are existing. While these sources of threats vary from country to country, region to region, globally there are commonalities in the nature of such sources of threats. These are:

#### Direct threat:

- ❑ **Marine & coastal pollution** caused by petroleum oil spillage at high sea and discharge of sewage and other solid waste from land based sources
- ❑ **Overfishing** in high sea and coastal zones
- ❑ **Degradation of coastal ecosystem by erosion and alteration of coastal ecosystem** as a result of climate change and increase of atmospheric CO<sub>2</sub> at the air-sea interface;
- ❑ **Habitat damage** caused by destruction of marine and coastal ecosystem/biodiversity due to human related activities like unauthorised construction on the coast, indiscriminate use of fishing gear and other activities likewise
- ❑ **Degeneration of marine/coastal biological diversity** due to above mentioned primary source of threat to natural marine/coastal ecosystem and overlying atmospheric physical environment.

#### Indirect threat:

- ❑ Fisherfolk's lack of knowledge about the surviving marine and coastal ecosystems and their greed to earn more money by overfishing. Not having appropriate relevant policies to protect marine life
- ❑ Government's lack of willingness to tackle greed of fishermen by not deploying honest and knowledgeable regulatory authorities

- ❑ Non-deployment of trained 'Watch-Guard' both at coast land (the inter tidal zone of any sea shore), and offshore water. (In India, such work of vigilance is partly being performed by Indian Coast Guard for sea water around Indian mainland and also in Andaman & Lacca Minicoy Islands)
- ❑ Ignoring expert opinion and their suggestions relating to marine and coastal conservation and derecognising them for the same by some of the corrupt government administrative officials
- ❑ National Intelligence Bureau including military intelligence have not been appropriately taught/trained to prevent corruption that is taking place at the cost of primary national security which includes both military and natural ecosystem security, and
- ❑ Lack of appropriate legislation
- ❑ The direct impacts on marine conservation are manifold. Deficit in national natural resource base (NRB) is one. Overall delay in sustainability of national growth and development only aggravates the concern of marine conservation creating multiplicity of negative impact

#### Remedial measures

What is urgently needed is political willingness so that policy changes can be brought in to reverse the modes of indirect 'threat', as explained earlier.

It will also help if a parliamentary programme is developed to spread awareness about the relation between climate change and marine conservation amongst Members of Parliament and legislators of all coastal nations, not just India. This step, we can hope, will bring about a change in the way our policy makers look at marine conservation. ■

\* Definition of *marine conservation* in this article has exclusively been developed by Dr. Ghosh and taken from his books under preparation: *Coast of India and Sea Around Us - Dimension of Threats to India's National Security*



The writer is the Chief Scientist of Asian Marine Conservation Association (AMCA). He has served as an adviser to late Prime Minister, Chandrasekhar Singh in forming the "Task Force" for combating Oil Spill pollution problem during the Gulf War in 1991.

The views expressed by the author are personal and not of AMCA.

#### Did you know?

As India prepares to bid adieu to telegrams on July 14, there is nostalgia about it everywhere. When the last telegram will be sent on July 14, it will also be the world's last telegram message to be sent. In India, the first telegram message was transmitted between Kolkata and Diamond Harbour in 1850. It is said that in earlier days, when telegram was the only means to send urgent messages, around 60 million telegrams were sent and received a year in India!

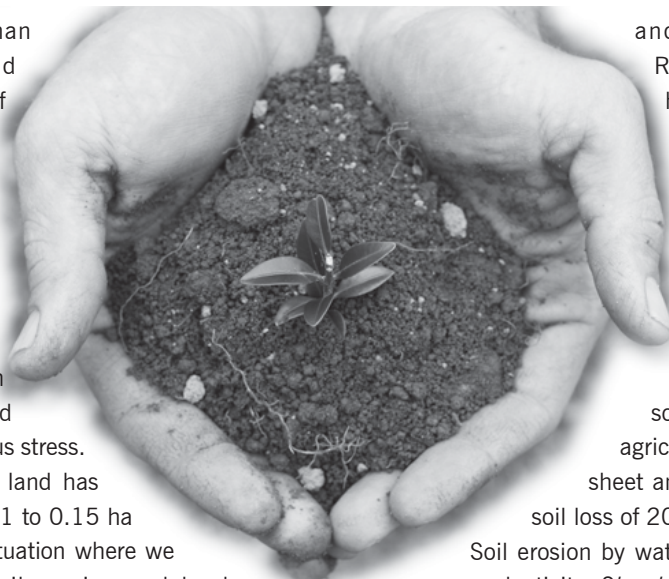
# Saving the soil

*The pace of soil degradation has greatly increased in recent times due to burgeoning population and the enhanced means of exploitation of natural resources. Soil and water conservation measures have become more relevant to combat the challenges of climate change and sustain the agriculture production, says **Dr. A.K. Tiwari** and **Dr. Sharmistha Pal**.*

INDIA has 16% of human population of the world along with 20% of livestock on merely 2.5% of the total world's geographical area. Owing to over exploitation of natural resources, tremendous increase in demand for food, fuel, fodder, fibre, shelter, communication, industry etc., and changes in lifestyle of people, the land resources are under tremendous stress. The per capita availability of land has declined from 0.48 ha in 1951 to 0.15 ha in 2000. This has led to a situation where we face serious problems of soil erosion and land degradation. According to estimate, about 147 m ha (45%) out of 328.73 m ha of land area has been degraded in one or the other form.

## Soil erosion – the major reason for soil loss

The process of soil erosion leads to a huge amount of soil loss in humid sub tropical India in both qualitative and quantitative terms resulting in low crop productivity. *Dhrubanarayana and Ram Babu (1983)* analysed the existing soil loss data of the entire country and indicated that soil erosion has been taking place at an alarming rate of  $16.35 \text{ t ha (tonne hectare)}^{-1} \text{ yr}^{-1}$ , totalling an annual loss of 5334 million tonnes. Nearly 29% of the total eroded soil is permanently lost to the sea and nearly 10% is deposited in reservoirs, resulting in the reduction of their storage capacity at the rate of 1-2%, annually. Rainfall erosivity, soil erodibility, topography, vegetative cover and conservation practices are the major factors affecting soil erosion. The major forms of soil erosion are sheet, rill and gullies. Sheet erosion takes place on the slopes due to overland flow. Rills form in the areas where overland flow concentrates. Excess concentration of flows causes gully erosion. *Singh et al 1992*, reported that the annual water erosion rate varies from less than  $5 \text{ t ha}^{-1} \text{ yr}^{-1}$  (for dense forests, snow clad deserts,



and arid regions of western Rajasthan) to more than  $80 \text{ t ha}^{-1} \text{ yr}^{-1}$  in the Shivalik hills. Ravines along the banks of the Rivers Yamuna, Chambal, Mahi, Tapti and Krishna and the shifting cultivation regions of Orissa and the north eastern states indicated a soil loss exceeding  $40 \text{ t ha}^{-1} \text{ yr}^{-1}$ . The soil, mainly supporting rainfed agriculture, are subjected to severe sheet and rill erosion, with an annual soil loss of  $20\text{-}100 \text{ t ha}^{-1} \text{ yr}^{-1}$ .

Soil erosion by water has a debilitating effect on crop productivity. *Sharda et al (2010)*, estimated soil erosion by integrating available experimental data of major crops in the rainfed area and reported that the total production loss due to water erosion under major cereal, oilseed, and pulse crops in India were 16%, which in actual physical terms was estimated as 13.2 million tonnes and in economic terms as more than 110 billion rupee. Since the losses are cumulative over time, it is imperative to undertake appropriate soil and water conservation measures for rehabilitation of rainfed areas to prevent huge declines in their productivity levels, which may increase further due to population pressures. Soil erosion in Indian forests is leading to huge loss in natural resources and biodiversity. The forests in the southern zone are least affected by soil erosion, while the rest of the areas are almost equally affected. The southern zones have the best preserved forests in the country. The highest level of erosion is seen occurring in the central zone. The eastern zone suffers from shifting cultivation and excessive rainfall. The western zone suffers due to aridity. The southern zone suffers from general problems related to aridity, low productivity and shallow soil depth.

## Minimising soil erosion

Improving the soil infiltration rate, resulting in less surface

runoff, can lead to reduction of soil erosion. Agronomic, cultural, or structural practices can control soil erosion. Structural practices involve physical changes in the shape and topography of the land. All these practices are not mutually exclusive. Some situations may require both management and structural changes, where the topography is highly complex. In other situations, erosion control can be achieved by implementing a single practice, where the erosion is minimum, such as the establishment of grassed waterways. The most effective way to control erosion is to maintain a permanent surface cover on the soil surface, such as pasture or meadow. Therefore, areas that are highly susceptible to water or wind erosion need to be considered for soil conservation programmes. Thus, the loss of the topsoil can have considerable impact on yield, where nutrient availability, root growth environment, and soil water availability are essential for plant development. In soils with unfavourable subsoil conditions, erosion can have a large effect on productivity, if the plow layer soil fertility is not restored. Plant residue management is another way of controlling soil erosion by intercepting raindrops, thereby reducing surface runoff and protecting soil surface particle detachment by raindrop impact. Crop residue can provide an excellent soil cover after harvest and improve soil water intake by preventing soil surface sealing due to raindrop impact, and consequently, reduce surface runoff. Equally important in minimising soil erosion is the adoption of a cropping system along with conservation tillage practices such as no-till, strip-till, and ridge-till. The degree of effectiveness of different tillage practices depends on the degree of soil manipulation, which effects the residue distribution on the soil surface.

Soil conservation in arable land includes agronomical measures such as contour farming, intercropping, strip cropping, mixed farming, mulching and tillage practices. Contour bunds graded bunds, conservation ditches, conservation bench terraces, outlets, grass waterways etc., are the mechanical measures which can be used in arable lands. These measures have been taken up on experimental basis in different regions and adopted at many places. Experimental data on contour bunds and graded bunds at Nilgiri hills show that the runoff can be reduced by 75% in case of graded bunds and the contour bunds can bring it down by 90% when compared with control up and down treatment (*Madhu et al., 2005*).

In non-arable land, contour trenching has been found to be effective in semi-arid region and the runoff was brought down from more than 70% of rainfall to around 10% of rainfall with drastic reduction in soil loss.

### **Viable strategies to tackle conservation issues**

Amongst the various alternative strategies being developed to

tackle resource conservation problems, rainwater harvesting and recycling has proved to be most promising and viable. Availability of irrigation water has motivated the farmers to improve land qualities by levelling their fields. Consequently crop yields from their private fields and biomass production from common land have increased manifold. As per the Planning Commission, there has been a shift in the approach and strategy of the watershed programme from the conventional soil conservation approach of safe disposal of runoff to rainwater harvesting and practices suitably supported by appropriate technology. The water harvesting structures can meet the full irrigation requirement in case of perennial source but in case of the stored rain water only 2-3 irrigation can be given to rabi crops. The supplementary irrigation in many of the projects has been found to be quite effective in increasing wheat yield as well as water use efficiency.

Watershed management is considered to be the best approach to reverse the degradation of water and soil resources. The model watersheds developed under different water management programmes depict the success stories of resource management in different parts of the country.

The soil and water conservation measures are implemented throughout India by central level organisations under the guidance of Ministry of Rural Development, Indian Council of Agricultural Research. National Rainfed Area Authority of the Government of India, plays a key role in conservation of soil and water resources through watershed management programmes. At state level, state agriculture departments plan and execute the soil and water conservation measures.

### **The road ahead**

In India, the problem of soil and water resource degradation has been in existence in the past, however, the pace of degradation has greatly increased in recent times due to burgeoning population and the enhanced means of exploitation of natural resources. An insight into the various regions show a grim picture of water scarcity, fragile ecosystems, drought and land degradation due to soil erosion by wind and water, low rainwater-use efficiency, high population pressure, poverty, low investments in water use efficiency measures and inappropriate policies. Field based soil and water conservation measures are essential for in-situ conservation of soil and water. The main aim of these practices is to reduce or prevent either water erosion or wind erosion, while achieving the desired moisture for sustainable production. The suitability of any in-situ soil and water management practices depend greatly upon soil, topography, climate, cropping system and farmers' resources. Based on past experiences several field-based soil and water conservation measures have been found promising for the various rainfall zones in India.

(Continued on page 47)

# Conserving national heritage is preserving our culture

*It is our collective responsibility to conserve and maintain our heritage monuments and sites. India has an adequate pool of expertise, infrastructure and stringent framework of laws to successfully execute heritage conservation projects. The problem is in implementation, social awareness, people's participation and ownership, political will and funding, says **Anil Noronha**.*

**I**NDEED it is hard to think of any country in the world richer in truly spectacular reminders of the past than India: from the fortresses of Rajasthan and the cathedral

churches of Goa in the west to the temples of Orissa and Tamil Nadu in the east and south, it is hardly possible to travel more than a few kilometres in any direction without coming across a building of striking appearance and historical interest," said former British High Commissioner to India, Sir David Goodall during his travels in India. From this observation it is obvious that India is a truly privileged nation in the sheer volume of its ancient heritage.

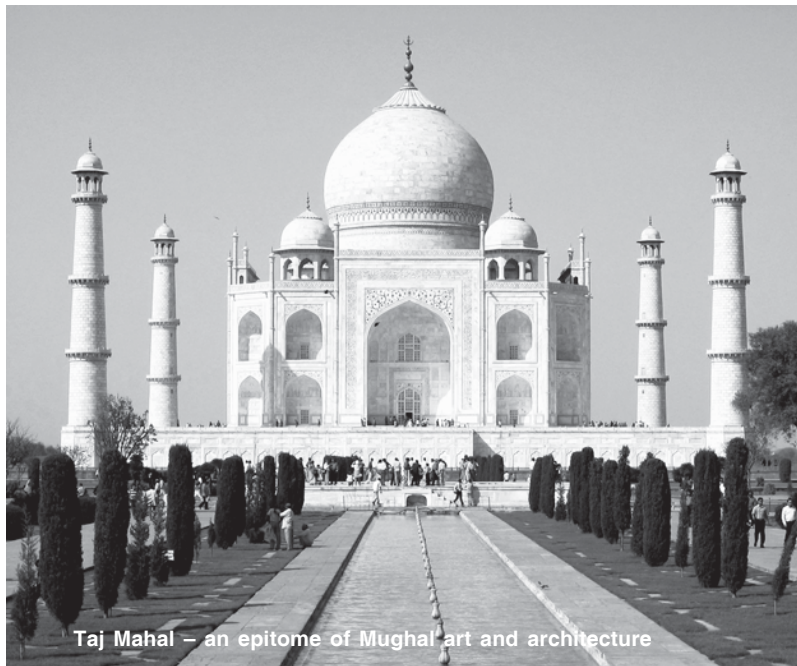
## Heritage conservation- a collective responsibility

With such a rich heritage, it becomes an important collective responsibility of the nation and the people to conserve and maintain these monuments and sites. When well maintained and accessible, they reinforce our sense of common history and provide a live, tangible compass and timeline of our and

civilisations' milestones in its unrelenting journey towards progress with all its myriad twists and turns.

A deeper understanding of who we were helps us comprehend

why and where we are, to better and accurately plan where we want to be, collectively as a nation and as a civilisation. The heritage monuments and sites are a living working model of solutions of our genius forefathers to problems they faced giving us an insight into their struggle with the limited technology and knowledge at a point in time. Their complex interdisciplinary



Taj Mahal – an epitome of Mughal art and architecture

'solutions' were responsive to and straddled art, painting, structure, building material science, weather conditions, geography, political systems, social practices and religious beliefs. We stand and go forward on the shoulders of our great forefathers even as they stood on the shoulders of their forefathers. Thus we have the Taj Mahal – an irrational lavish epitaph of love to Empress Mumtaz Mahal by Emperor Shah Jahan. It is an epitome of Mughal art and architecture that



**The Buddhist caves at Ajanta and Ellora are fine examples of spectacular artistic and architectural evolution**

sends millions of visitors into raptures of ecstasy and delight. Similarly the Great Pyramids of Egypt that inspire awe and wonder in generations of tourists are nothing but a technological marvel and solution to an obsession and belief of a ruler and his people with immortality and rituals around death and burial. Again the engineering genius inherent in the shikaras and domes of the temples of south India and the gothic arches and flying buttresses of the cathedrals were driven by the strong set of religious beliefs of the time. They display an immense mastery over a delicate and subtle balance of scale, space, proportions, light, acoustics and psychology to create awe and wonder in the then devotees and subjects. The Buddhist caves at Ellora, Ajanta and other places strewn across the country are a spectacular artistic and architectural evolution and interpretation of our cavemen ancestors' equally spectacular technological feat of moving into the humble cave for protection from the wild animals and the weather elements. They were forerunners of the era of using and manipulating natural material to create new structures instead of extending and adapting existing caves. None would have predicted then that their instinctive quest for art and culture in their stick drawings would be the seeds of complex vegetable dyes, paints, tools and procedures that gave us Michael Angelo's Mona Lisa or the Sistine Chapel ceiling.

The ruins of Harappa and Mohenjo-Daro stand testimony to the brilliance, sophistication, complexity, knowledge and grasp of great ancestors for which we are rightfully proud. Unfortunately as a nation, our record in translating this pride into conservation action has lagged behind most nations. A

**Tourism is a double edged sword and if not monitored and controlled carefully, could destroy with littering and defacement the very monument that was the original source of tourism and revenue.**

secondary benefit of a well executed policy of conservation is the inflow of precious revenue generating tourists – the single largest source of employment generation globally. Of course tourism is a double edged sword and if not monitored and controlled carefully, could destroy with littering and defacement the very monument that was the original source of tourism and revenue.

As Ratan Tata said during the Tata Group's Public-Private-Partnership (PPP) venture into funding the Taj conservation project: *"it was a "sad fact" that India attracts only two million tourists a year, whereas Singapore attracts seven million."* The Prime Minister too in his valedictory address to the 34th meeting of Central Advisory Board of Archaeology quoted his daughter during her visit to the library of US Congress: "Daddy, I have got some idea what you should be doing in the Ministry of Culture - the way the Americans preserve their ancient monuments even though it is only a fraction of what we have in this country."

#### **Commendable work by ASI**

This is in spite of the legacy of archaeologist John Marshall bequeathing us with the first heritage conservation manual over a century ago. The Archaeological Survey of India (ASI) has been the institution at the vanguard of interventions in heritage conservation in India since its inception in 1861 by Sir Alexander Cunningham under the British colonial administration. After independence the ASI came under the Ancient Monuments and Archaeological Sites and Remains Act of 1958 and has been doing commendable work and attained enviable expertise. ASI administers 3636 monuments it has declared to be of national importance under the provisions of the Antiquity and Art Treasure Act 1972. In fact ASI with its expertise was invited to and contributed to the works of Bamiyan in Afghanistan and Angkor Wat of Cambodia.

India has an adequate pool of motivated professionals, expertise, technology, knowledge, experience and infrastructure to successfully execute heritage conservation projects from classifying to maintaining to restoring and conserving. We also have a stringent framework of laws in place. The problem is in implementation, social awareness, people's participation and ownership, political will and funding.

The Department of Archaeology, Government of Gujarat erected a board at the site of the impressive, but no entrance

fee Mahabat Maqbara in Junagarh stating, it is protected under Gujarat Ancient Monuments and Archaeological Sites and Remains Act, 1965 (Gujarat Act No.65 of 1965) with a warning that anyone defacing, destroying, or removing any part of it, or imperiling it in any manner will be liable to a punishment with a fine up to ₹5000, or imprisonment up to three months, or both. This did not seem to deter children, beggars, loiterers and goats or the utter neglect of this monument.

In the year 2000 in the village Mandi near Muzzafarnagar in Uttar Pradesh the biggest and most shocking incident of archaeological plundering took place. Women labourers found a large collection of gold from the Harappan era

while scraping topsoil. The entire village gathered within minutes and looted 350 pieces of the 500 kg gold with rumours of collusion with the local administration and police. This in spite of the Indian Treasure Trove Act, which states “those who bring in gold coins are to be paid 20% more than the market value.”

### Protecting our legacy

The issue of funding is easily addressed by public spirited Corporates. However, here too, lack of local participation has created legal hurdles. The Qila Nabha in Punjab came up with a private sector proposal for the fort of Nabha. The private sector filled the gap of the public works department's lack of a proactive plan to develop and restore the fort. However, the rumour that, “These guys are out to grab land and they'll build a mall here”, was enough to delay and trap the project in litigation for four years. Finally, the court gave a historic verdict and confirmed that private sector investment in cultural heritage is desirable. The Grade I Heritage Mahim fort is caught in a cross fire between the state government's archeological department, The Mumbai Port Trust and the Brihanmumbai Municipal Corporation. The fort standing in the backdrop of the sleek modern sea link has parts of the fort caved in due to tidal erosion, the slum encroachments



**The Grade I Heritage Mahim fort standing in the backdrop of the sleek modern sea link is in a state of apathy**

are now a political issue and the premises are occupied by alcoholics and drug addicts.

Years from now will our descendants be filled with the same awe and inspiration we feel for our fore fathers, when they examine the legacy of the mega structures we add to the carefully tended legacy our forefathers left behind? Will our malls, airports, bridges, Antillas pass the scrutiny of the continuum of reason, rationale and brilliance we ascribe to our ancestors? Will we seem to have learnt from the lessons of the past and built on it? These are critical questions to which we owe inspiring answers. Again as Sir David Goodall said: “However successful India may be in attracting the tourists it wants to welcome, there will always be more than enough wonders to surprise and intrigue them all.” ■



The writer is a practicing architect based in Mumbai. He has also been prolific in filing RTI applications as a tool to demand accountability from the administration in his concern for social and civic issues - particularly in the department of cooperation and housing societies.

### Did you know?

*Chand Baori is a famous stepwell in Abhaneri village near Jaipur in Rajasthan. ‘Baoris’ or water reservoirs are the unique invention of the natives for harvesting rain water and were also seen as cool places of resort. Chand Baori is one of India’s deepest and largest step wells, which is also an architectural delight because of the delicate carvings on it. This colossal 10<sup>th</sup> century step well is located in front of the Harshat Mata Temple, considered to be the Goddess of Joy and Happiness. It was a ritual to wash hands and feet at the baori before visiting the temple.*

# Energy auditing India for sustainable development

*Energy audit is imperative to energy conservation programmes and is a vital link in the entire energy management chain, which in turn can guide and control energy use so as to yield maximum possible output per unit of energy, writes **Leena Mehendale**.*

**J**ust as an industry needs to know if it is working efficiently, and is fully utilising its resources without wastage, so also a country needs to examine if its resources — raw material, energy, water, finances and man power— are being used efficiently. It also needs to think on the scope for reducing the wastage and conserving the resources for sustainable development.

If we decide to Energy Audit India, how would we proceed? This was a question taken up way back in 2004 at PCRA (Petroleum Conservation Research Institute), while I was in charge of it. We felt that there were two facets of this approach — one was to base the module on same lines as we do in Energy Audits in four major sectors namely: industrial, transport, agriculture and domestic, and of course, in power-generation plants. The second was to look beyond them. One of the objectives of PCRA is to function as a “Think Tank” to the Government of India for future policies and strategies on energy efficiency, petroleum conservation and environment protection. PCRA through its various brainstorming sessions, assessed that just on the lines of Energy Audit in industries, we carry out Energy Audit of the country on a fixed frequency — preferably once in five years, co-terminus with the plan period. Such a report generated one year before each plan period, shall become a part of the plan document. Energy conservation is a multifaceted activity involving both promotional and regulatory measures. The level of energy efficiency in developing countries is very low, the reasons for this being lack of technical knowledge, non-availability of energy efficient equipment or machinery and wrong energy subsidies. Energy subsidies, particularly those encouraging energy consumption by keeping the energy prices low, result in low efficiency, environmental degradation and increased energy intensity.

As per world energy outlook, India’s Specific Energy Consumption per unit of GDP is much higher than that in the developed countries, indicating very high energy wastage and thus potential for substantial energy savings.

In an ideal situation, the Specific Energy Consumption measures how much energy is consumed per unit of GDP

growth. The Specific Energy Consumption is closely related to economies of scale, process technology, instrumentation and control, structural changes, government policies and end users’ behaviours. It is a universal scale for bench-marking and setting energy efficiency targets, something that has been effectively used by the Japanese.

In India, the industrial sector consumes 50% of the total commercial energy but contributes only 25% to the country’s GDP growth. Currently, this sector consumes more than 100 MTOE (million tones of oil equivalent), with a growth rate of about 6% per annum. There is a need therefore, to bring about substantial improvements in the efficiency of energy use in the industrial sector. This alone can enable the Indian industry to compete effectively in the global market and also ensure higher profits. Based on various analyses, a saving potential of around 20% has been identified in the industrial sector without significant investment.

**Taking cue from Energy Audit of an Industry — To do this let us take a look at how Energy Audit is conducted**

## Energy Audit of Industry

An industrial energy audit helps in optimising energy cost, pollution control, safety aspects and suggest methods to improve the operating and maintenance practices of the system. The energy audit provides necessary information base for overall energy conservation programmes and is a vital link in the entire energy management chain. Energy management in turn can be construed as the process of guiding and controlling energy use so as to yield maximum possible output per unit of energy.

To meet the stated objective of Energy Audit in a holistic manner, the overall process of an industrial energy audit can be placed under five broad categories:

### 1. Minimise obvious wastages

Reduce wastage such as too much movement of inventory, making two trips when one is sufficient, non-balancing raw material, using excess water, lighting etc.

## 2. Current plant performance

A good understanding of the manufacturing process is essential in order to break it up into smaller units for purpose of energy audit. By looking at individual current performance of major operating departments, their key equipments and the parameters of each of their process, we can do technical analysis to check the energy efficiency of each stage and identify areas where technical improvement might be made. The cost involved for achieving enhanced performance is determined and financial analysis performed to identify cost effective measures. Here the total energy saving is the sum of energy saving at each stage or department or equipment.

## 3. Process integration

Process integration always results in bulk energy savings. It is a design tool to optimise energy use in plants employing conventional technologies. It is common sense that manufacturing plants using batch processes would instantly benefit by shifting to continuous processes but the decision is not always easy as it requires considerations of market availability, inventory management, and manpower management too. Where the plant is already having a continuous process, its intensification is the key. It involves making fundamental changes to processing technologies to yield improved product quality, throughput and energy efficiency. The advent of computers have made such an integration much more accurate than was earlier possible with manual controls.

## 4. Retraining of manpower

As industries are adopting advanced equipment and process technologies for competitiveness, the available manpower also needs to be imparted new knowledge and skills to operate such technologies, for which retraining is very essential. Retraining of manpower can be done through: Qualification improvement programmes, vocational courses, distance education, workshops, training at OEMs (original equipment manufacturers) etc. One major aspect of training is attitudinal change.

## 5. Paradigm shift

A major scientific or philosophical breakthrough can bring in a paradigm shift leading to energy efficiency. Often it makes some aspects redundant. A typical example of paradigm shift was the Japanese approach of JIT (Just in Time) which obviated the need to keep any inventory in the factory premises.

## Energy Auditing India

For 'Energy Auditing India' we can try to apply the above 5 modules. **Reducing obvious wastage** has great potential. Careless use leading to wastage is a routine affair for water, grains, electricity, fuel, even human beings. Unit-based approach can be useful for a sector specific study of energy conservation pattern and fixing energy saving potential of major

industries like aluminium, steel, textiles, cement, paper, fertilizers, petroleum and chemical etc. Such first step has been taken. BEE (Bureau of Energy Efficiency) and PCRA have together fixed these targets under Energy Conservation Act and now adopting various persuasive measures with those industries to achieve them.

## Process Integration

In the context of 'Energy Auditing India', process integration means synergistic role and action of various actors, which include: -

- Government – National and State level
- Energy Efficiency Agencies
- Equipment manufacturers
- Non Government Organisations (NGOs)
- Ministries/Departments like
  - Planning Commission,
  - HRD Ministry
  - State Technical Education Boards
  - Department of Science and Technology
  - Ministry of Power
  - State Electricity Boards etc.

The other issues concerning, process integration which require action oriented approach are:-

- Integrated resources planning
- Demand side management
- Policy guidelines and concept

## Retraining Manpower

For the success of 'Energy Auditing India' programme, involvement of people at the grassroots level is important. This involvement can be ensured by motivation, education and legal liability for compliance. In this regard, the approaches can be as follows:

- Vocational training for skill building and skill updation
- Mass education/awareness campaigns on behavioural and attitudinal changes towards energy and environment
- Statutory measures to curb inefficient use of energy and illegal practices like fuel adulteration and environmental protection

It is worth listing PCRA's efforts thus far in respect of the above three.

### i) Vocational training for skill building and skill up-dation

Unfortunately, in India we have excess of qualified engineers but scarcity of competent middle-level skilled persons like plumbers, electricians, carpenters, etc. In spite of Government's efforts to open Industrial Technical Institutes (ITIs) in every district HQ and other smaller towns, we have not been able to attract sufficient number of candidates to take advantage

of these courses. The simple reason for lack of interest in acquiring ITI qualification is that the poor candidates, belonging to a particular category lack the means and basic qualification to enter these courses. For this category of youth it is much easier to learn the traditional skills from their elders, where no basic qualification is required. Also there is no opportunity for them to update their skill and knowledge due to lack of basic qualification, resources and learning forums.

PCRA has prepared 60 films on vocational training, where persons with such background can update their knowledge to become more competitive. Some of the vocational films, produced by PCRA cover: carpentry, domestic wiring, masonry, Lathe machine, tractor maintenance, plumbing, welding, AC repair, motor winding, etc.

### **ii) Behavioural and attitudinal changes through mass media**

One of the objectives of PCRA is to create awareness among masses about the importance, benefits and methods of conserving petroleum products and environment protection by enhancing information sharing and mass awareness.

A number of initiatives have been taken by PCRA to bring in attitudinal changes amongst the masses for efficient utilisation of energy, spreading awareness on issues like energy efficiency and protecting environment, through infotainment radio programmes such as 'Boond Boond ki Baat' and edutainment programmes such as "Khel Khel Mein Badlo Duniya" on Doordarshan, which has covered episodes on wind energy, solar energy, biogas, vermiculture, metro rail, vehicle population in metros, transportation of petroleum products etc. Regular Press Advertisements are also being released by to achieve maximum reach to the households of the country.

### **iii) Statutory measures to curb inefficient use of energy, fuel adulteration and environment protection**

In addition to persuasive measures it is necessary to introduce statutory measures to curb inefficient utilisation of energy. Energy conservation Act 2001, which makes Energy Audit mandatory for certain types of industries is one step in this direction.

As has already been stated, energy intensity in our country remains very high in comparison to developed countries. It is true that we have improved our energy efficiency to some extent. To be globally competitive, a demand or need driven programme is more likely to succeed than a supply driven program based on subsidies.

Fuel adulteration is another area of concern in our country. As it results in environment pollution, the Hon'ble Supreme Court of India has given direction to setup two fuel testing laboratories to check fuel adulteration. The lack of will in the enforcement agencies under Petroleum Sector is coming

in the way of checking fuel adulteration.

### **Sustainable eco and energy conservation**

For sustainable Eco and Energy conservation, we need two paradigm shifts. First, adopt some new visions for development such as using our Optic Fiber Network to provide Rural Tele-Communication rather than depend on traditional methods, developing our next-to-nil research capabilities, larger thrust on skill education, energy-efficient urban planning, and so on. Second, question the sanctity of some of our developmental models. I can cite two examples – Our agriculture sector consumes less energy per unit of GDP – why not develop it? Our service sector promotes too much of non-productive services (security guards, super star hospitals, etc) – why promote them?

Let us examine this scenario – the local municipal corporation supplies water but not potable enough – individuals buy water purifiers – GDP grows, but these machines necessarily throw away 50% water – that had been pumped and brought there. We do not calculate how much water and energy have been wasted in the process – we focus only on GDP growth brought in through increased business of individual water purifiers. Another example, let us look at education of urban children. Instead of promoting neighbourhood school model, which requires revamping of quality education in all schools, our policy allows "specialized seven-star schools" requiring daily transportation of thousands of school children across huge distances in the city leading to tremendous energy consumption in unproductive activity.

The most energy-efficient country, namely Japan sets targets for still higher energy efficiency – and one strategy is by educating children to critically examine various lifestyles and choose what promises to ensure sustained energy efficiency. We too need to prepare ourselves for such courageous paradigm shifts. ■

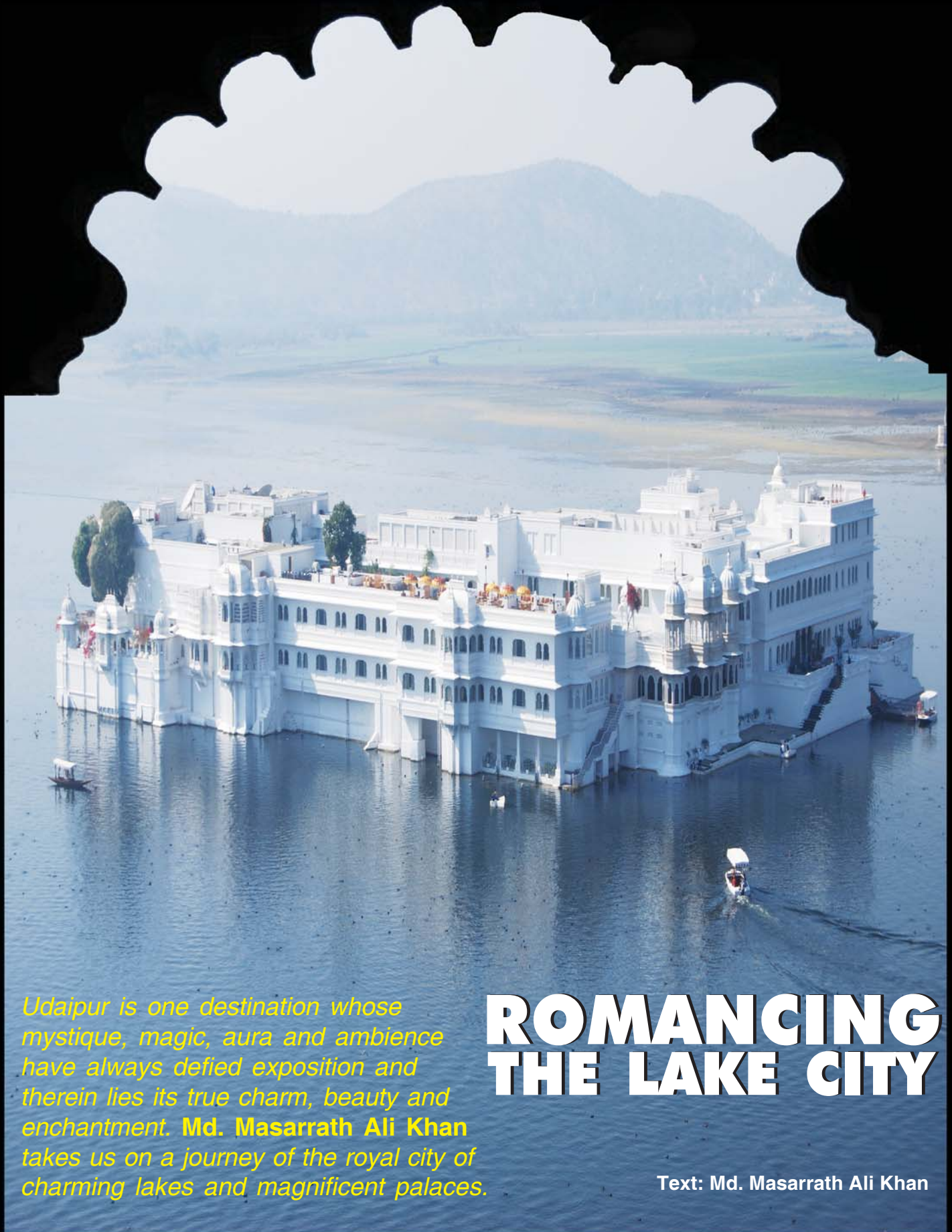
The author, presently Member CAT Mumbai in the rank of High Court Judge, is an accomplished administrator, teacher, thinker and writer. She has travelled over 400 out of 650 districts in India and is proficient in many Indian languages. As an administrator she has worked in various departments which include education, women, children, industries, petroleum, agriculture, and health.

Some of her service highlights are economic rehabilitation of Devdasis, making TV and radio serials for energy conservation, designing, training and framing policies for Yashada (Yashwantrao Chavan Academy of Development Administration) and promoting Indian languages on computers. Presently, she is actively pursuing revival of Sanskrit language.



She has given over 1000 lectures, authored 25 books on diverse subjects and over 600 articles, in Marathi, Hindi and English.

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*Udaipur is one destination whose mystique, magic, aura and ambience have always defied exposition and therein lies its true charm, beauty and enchantment. **Md. Masarrath Ali Khan** takes us on a journey of the royal city of charming lakes and magnificent palaces.*

## **ROMANCING THE LAKE CITY**

**Text: Md. Masarrath Ali Khan**

**U**DAIPUR is one of the most romantic tourist places in India situated around shimmering clear blue water lakes, which whisper the mood of a bygone era. Also known as the “City of Lakes”, the “Venice of the East”, and the “Heaven of Rajasthan”, this ex-capital of Mewar kingdom presents a glorious history of bravery, chivalry and patriotism. It is a land rich in royal heritage with lovely water palaces, historic hill top forts and beautiful gardens.

### History

According to ancient sources, Guhil founded the Mewar state in 6<sup>th</sup> century, and was followed by Bappa Rawal, Khuman (9<sup>th</sup> century), Rawal Ratan (1303), Hammir (1326-1364), Kshetra Singh (1366-82), Lakha (1382-1421), only to name a few.

The rulers of Udaipur were fiercely independent and took immense pride in not succumbing to any foreign invasions. They would gladly sacrifice their lives for the sake of their country. When defeat was inevitable, the women and children would march into a funeral pyre called *Jauhar* in a mass-suicide ritual.

Legend says that one day in 1559, Maharana Udai Singh II was hunting in a hilly region southwest of Chittorgarh. While he was near the Pichola Talao (Pichola Lake), he found a rabbit and killed it with an arrow. Then he saw a Hindu saint Goswami Prem Giriji Maharaj meditating on a hill near the lake. He approached the sage and had his *darshan* (blessings). The saint advised him to build a city at the same spot. The long unending range of

Aravallis and forests provided a natural defence for the new city. Maharana Udai Singh II obliged the saint and laid the foundation of the city palace in 1559 after the birth of his grandson Amar Singh I. The Maharana built a small shrine of Dhuni Mata to mark the spot. In 1553, Maharana Udai Singh built Moti Mahal at Udaipur as a temporary palace. The Mughal Emperor Akbar laid siege to the Chittorgarh Fort (3<sup>rd</sup> sack) in 1568. Thousands of Rajputs perished in defending the capital, and it passed into the hands of the Mughals. It was only then Maharana Udai Singh shifted his capital to the new place that

later came to be known as Udaipur.

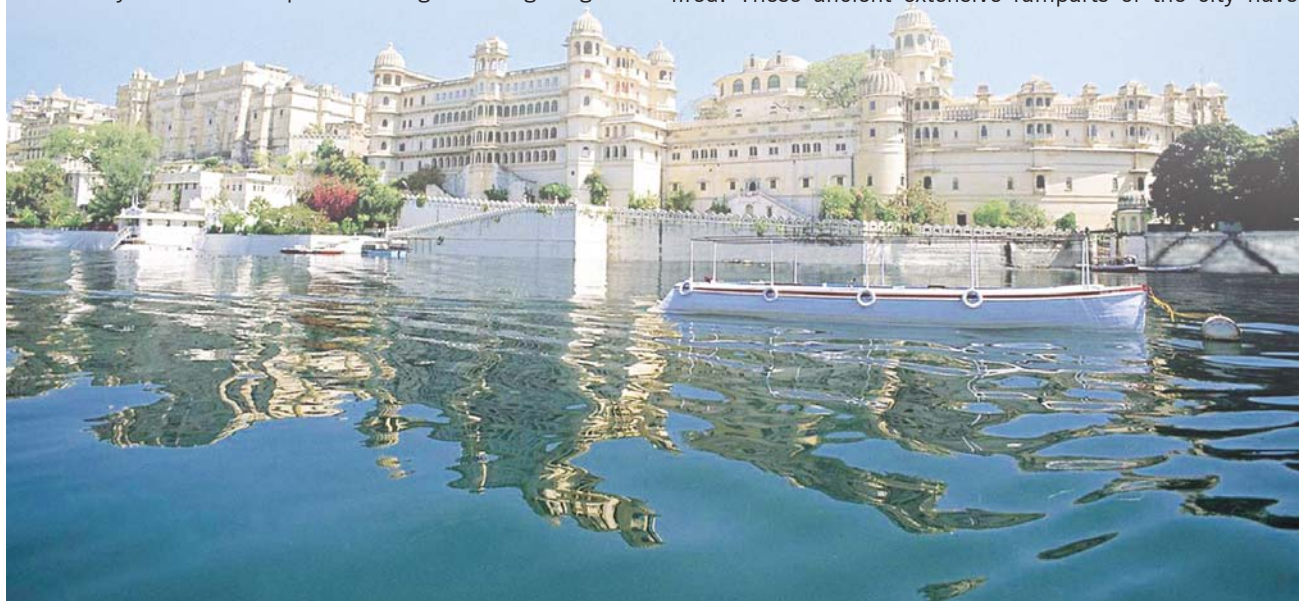
Udai Singh died in 1572 and was succeeded by his son Maharana Pratap. During his reign, Akbar attacked the Mewar territory and a historic battle was fought at Haldighati in 1576, which ended in a stalemate. Jehangir sent a powerful expedition led by Prince Khurram (later Emperor Shah Jahan) in 1613. The Mewar kingdom finally negotiated a peace treaty (1614-15) with the Mughals, which terminated the century-old struggle between the two ruling houses.

After India attained Independence, the kingdom acceded to the Republic. The Government of Rajasthan paid close attention to its beautification and slowly but steadily, Udaipur evolved into one

of the most glorious and dreamy cities of India.

Udaipur was built on tiny hillocks and had high rampart walls and many massive gates that were studded with iron spikes to deter enemy war elephants. Until the middle of the 20<sup>th</sup> century, the city gates were closed every night when a signal gun was fired! These ancient extensive ramparts of the city have

**A rich repository of Mewar art, heritage and culture and a great architectural composition of high merit, Udaipur City Palace is a miracle of rare devices.**



A view of the City Palace Complex from Lake Pichola

Pic: HRH Group of Hotels, Udaipur

disappeared with the passage of time. But at least nine gateways remain. These gateways and remaining walls, though in reasonable shape, are unfortunately disfigured with posters, hoardings and electric cables.

### City Palace Complex- The pride of Udaipur

The pride of Udaipur is its City Palace Complex by all means. Maharana Udai Singh began construction of the palace in 1559 AD and it had grown into a well fortified city in itself by the end of 19<sup>th</sup> century. The approach to the palace is through the Hathi Pol, along the main street of the old city. The Badii Pol (Great Gate) brings the visitor into the first court. From there one enters into Tripoliya Gate, an exquisitely carved triple arched Gateway, built in 1725. Between the two gates are eight carved arches (*Toranas*), under which the Maharanas were weighed in gold and silver that were later distributed among the poor.

Towering on a hill alongside Lake Pichola, the Udaipur City Palace is a huge imposing structure of granite and marble with a windowless base, ornate turrets and canopies. It was converted into a public museum in 1969. A rich repository of Mewar art, heritage and culture and a great architectural composition of high merit, this magnificent edifice is a miracle of rare devices and a conglomeration of interconnected art galleries, overlapping pavilions, open terraces, balconies, luxury rooms, hanging gardens, and halls of paintings – constructed by different rulers over a period of 300 years - but all these additions were so carefully planned, integrated and harmoniously blended with the original one that the palace as a whole looks uniform in design. The palace with its ornate turrets and canopies, towers



**Visitors at the upper storey of the City Palace**

Pic: Md. Masarrath Ali Khan

up to 31 metres from a low ridge and spans 244 metres in length. Its massive octagonal towers are crowned with cupolas. The whole of the building has a soft cream colour while its central chhatri has a fascia of deep blue tiles.

### City Palace Museum

The earliest part of the City Palace is the Rai Angan (1559 AD), a square courtyard flanked by the Nau Chauki Dhuni Mata block on the western side and a partly covered verandah with corner storage rooms called Nika ki Chopad, Pande ki Ovari and Sej ki Ovari respectively on the eastern edge. Below these rooms on the east is the Silehkhana (armoury) that actually forms the foundation of this block. A flame has been burning for centuries at the Nau Chauki Dhuni Mata Shrine, in gratitude to the wise old sage Gosai Premgiri who suggested this spot for the new capital. The principal deities of Mewar are kept here in niches.

From there, the visitor moves into the Chandra Mahal or Lakhu Gokhda (1620-28). When Maharana Amar Singh's son Karan Singh was born, the queen distributed contents of a stone



**The City Palace Museum is a huge imposing structure of granite and marble with windowless base, ornate turrets and canopies**

Pic: Md. Masarrath Ali Khan



**A huge ornamental Sun is preserved in the Surya Chopad (Balcony of the Sun) in the City Palace Museum**  
Pic: Md. Masarrath Ali Khan



**An extensively decorated room in the City Palace**  
Pic: Md. Masarrath Ali Khan

basin, full with 1,00,000 silver coins at Chandra Mahal. Further inside, the tourists meet a hanging lush green garden Shiv Prasanna Amar Vilas Palace (Baadi Mahal) at a height of 90 feet from the ground level. It is built on the ground upon a high rock formation, between 1698 and 1711, during the reign of Maharana Amar Singh II. It features a beautiful central garden

with flowering shrubs, trees, ponds, fountains and arched pavilions, providing a quiet, shaded spot to rest during a tour of the City Palace. A marble courtyard runs around the garden with a square central pool and fluted columns reminiscent of the Mughal's architecture. From the latticed windows, an avid photographer gets a splendid eagle top perspective of the Lake Palace.

The tragic memories of the young beautiful princess still haunt the Krishna Vilas (1710-1734 AD). In 1805, during the reign of Rana Bhim Singh, the Rajput rulers of Jaipur and Jodhpur were ready to attack Rana Bhim Singh. Both princes wished to marry the Sisodia princess Krishna Kumari. Rana Bhim Singh could not dare to refuse either prince, owing to the political circumstances then prevailing in the state. A war was likely to take place between the two states. The death of the princess was the only way to avert the war. When the 16-year-old young princess came to know about her father's predicament, she decided to end her life than allowing her state to plunge into war. The poison cup of *Kasoomba* blossoms, the poppy, was given to her. She drank the poison and died here. Her mother, heart-broken at her daughter's tragic fate, soon followed her. The father, who could not prevent the tragedy, consoled himself

by turning his daughter's room into a pavilion of beauty and splendour and dedicating it to her. Her palace contains a series of beautiful miniature paintings, which include remarkable depictions of royal processions, the festivals of Holi and Diwali, the royal game of Chaugan and the Gangaur procession.

**The miniature paintings give a picture of the Udaipur Palace as it looked in the 18<sup>th</sup> century, with scenes of courtly life, festivals, ceremonies, elephant and other royal hunts and battles.**

The Badi Chitrashala built by Sangram Singh II (1710-1734), is full of florid paintings, with a strong influence of Mughal style. The Chini Chitrashala built in 1717 has exquisite Chinese porcelain and glass ornamentation and is well-known for its brilliant blue mosaics. The depictions of biblical scenes are quite marvellous.

Another picture hall worth a visit is the Chhoti Chitrashala (1620-28), built by Karan Singh. It is decorated with secular and religious pictures and portraits, which seem to give a new impetus to the fine art. This art, though essentially Hindu in character, reveals an assimilation of the Mughal style.

The miniature paintings in the palace belong to the Mewar School and are executed with mineral and vegetable dyes. They give a picture of the Udaipur Palace as it looked in the 18<sup>th</sup> century, with scenes of courtly life, festivals, ceremonies, elephant and other royal hunts and battles.

Maharana Pratap had a favourite horse namely Chetak which met with a sad end while jumping a rivulet. A model of Chetak is preserved in the Nika ki Chopad. A large trunk is attached to the horse's head to give it the appearance of an elephant. The Silekhana contains guns, swords, *dhals* and innumerable arms of the Maharanas.



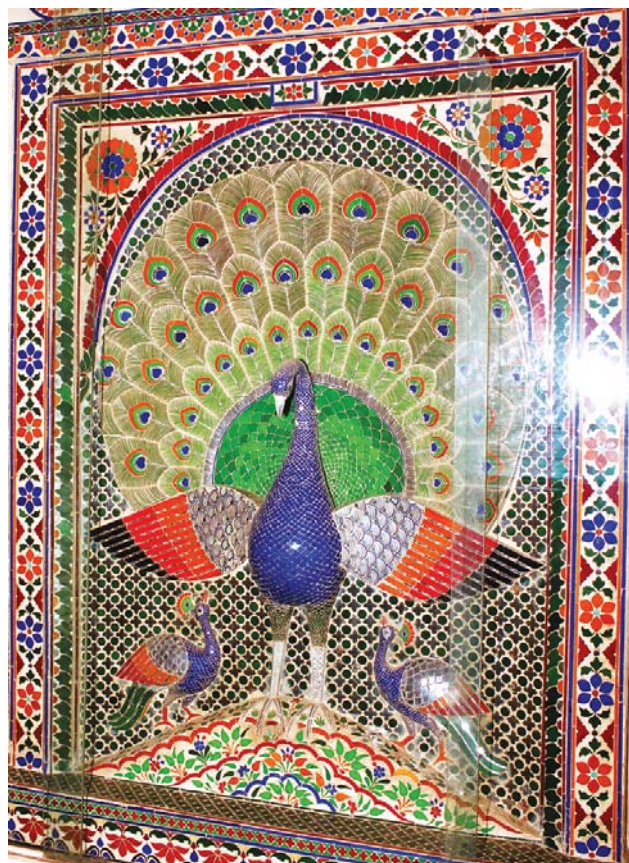
**A room in the City Palace Museum adorned with beautiful paintings** Pic: Md. Masarrath Ali Khan

The Moti Mahal (1620-28) is embellished not with pearls but with thousands of tiny mirrors, creating a magical interplay of reflections. Stories of Radha and Krishna are painted on the walls of the Bhim Vilas (1796). The glass mosaic gallery with its superb stained glasses and portraits afford a panoramic view of the city below. A huge ornamental Sun is preserved in the Surya Chopad (1620-28). This was the Balcony of the Sun where the Maharanas presented themselves to the people in the times of trouble to restore their confidence.

At least two palaces are ascribed to Maharana Karan Singh. One of them is the most beautiful chamber called Mor Chowk built in the 17<sup>th</sup> century, as a new *darbar* (reception area). It has finely crafted peacocks in bright mosaic relief, made of 5000 pieces of Belgium glass and miniature-mirrors. Maharana Sajjan Singh (1874-1884) got the peacocks placed here in the 19<sup>th</sup> century. These ornamental birds – dancing in different postures - represent the three seasons of the year— summer, winter and monsoon. The second one is the Zanana Mahal (Palace of Queens) situated to the south of the city palace. Its original name was *Rawala* and it was opened to the public in October 1974. The queen's apartments are ornamented with murals, inlaid glass and panels depicting scenes from the life of Lord Krishna as well as pictorial stories of Hindu and Rajasthani origin.

### Shambhu Niwas

Built by Maharana Shambhu Singh (1861-1874), in the 19<sup>th</sup> century the Shambhu Niwas is an impressive building of the British period on the southern end of the city palace and adjoins the Fateh Prakash Palace. It was the first building of its kind to have been built in European design. Its drawing rooms, billiard-rooms, side-boards and looking glasses, all mark a brilliant departure from the traditional Rajput architecture. The palace



**A peacock set in 5000 pieces of Belgium glass and miniature-mirrors** Pic: Md. Masarrath Ali Khan

has rooms with high ceilings that are supported by wooden beams. An additional feature is the extensive western terrace which offers a captivating view of the Lake Pichola, Jag Mandir and the Lake Palace. Shambhu Niwas was used as the royal residence till Maharana Fateh Singh built a new palace, Shiv Niwas, and shifted his residence there. Later Maharana Bhagwat Singh converted Shambhu Niwas into the royal residence and after his death in 1984; his son - the present head of the House of Mewar, Shriji Arvind Singh Mewar – continues to live here. It is now his official residence, business office and venue for private functions.

### Shiv Niwas

Rising as a small crescent at the southern end of the city palace complex is the Shiv Niwas Palace. Maharana Fateh Singh (1884-1930) originally built this as single storied structure and used as his private residence. Between 1978 and 1982, Maharana Bhagwat Singh added a second storey crescent of eight luxury apartments, each with its own private terrace. This royal home has played host to many world dignitaries including Queen Elizabeth II, the King of Nepal, the Shah of Iran and Jacqueline Kennedy. The Shiv Niwas Palace has 19 palace rooms, 8 terrace suites, 6 royal suites and 3 imperial suites.

### Fateh Prakash Palace

Fateh Prakash Palace, located at the southern end of the City Palace, between the Zanana Mahal and Shambu Niwas Palace is the youngest in the family of grand palaces, built by Maharana Fateh Singh (1884-1930). Lord Minto laid the foundation of its Durbar Hall (Minto Hall) on 3<sup>rd</sup> November 1909. It has an impressively large and airy Durbar Hall with magnificent chandeliers and portraits of Maharanas adorning the walls. Inspired by the showroom of Birmingham based company F&C Osler in Calcutta, Maharana Sajjan Singh ordered the staggering collection of crystal in 1877 from London; but he died before the arrival of the shipment. So much of the crystal collection remained

packed in cases. It was only in 1994 that it was opened for public display. The crystal gallery in this palace has an astounding collection of lamps, washing bowls, perfume bottles, vases, and paper-weights, writing instruments, crockery, fountains, furniture, glass beds, chairs and many important antiques.

### Jag Mandir

Jag Mandir is an island palace in Lake Pichola, made of finest yellow sandstone inlaid with marble. The construction of Jag



Foreign tourists pose for a picture in traditional Rajasthani attire at Sahelion Ki Bari

Pic: Md. Masarrath Ali Khan

Mandir was started by Maharana Karan Singh (1620-1628) and finally completed by Maharana Jagat Singh I (1628-1652).

Historian James Tod extolled Jag Mandir's grandeur in the following words: *"Here they listened to the tale of the bard, and slept off their noon-day opiate amidst the cool breeze of the lake, wafting delicious odours from myriads of the lotus flower which covered the surface of the waters; and as the fumes of the potion evaporated, they opened their eyes on a landscape to which even its inspirations could frame no equal"*.

An intricately carved Chhatri made of gray-blue stone adds an elegant charm to the whole scheme and a row of huge stone elephants,

guards the palace. The palace holds a significant place in the history of Mewar. From 17<sup>th</sup> century onwards, it came to symbolize the *Suryavanshi* ideals of helping a person in distress. When the Mughal Prince Khurram rebelled against his father, and sought refuge from the rulers of Mewar in 1623, the then Maharana lodged him in this island palace. Khurram is said to



The Jagdish Temple, located near the City Palace, dedicated to Lord Vishnu, is said to have taken 25 years for completion

Pic: Md. Masarrath Ali Khan



**Jag Mandir's most striking feature is its spacious courtyard**

Pic: Md. Masarrath Ali Khan

have conceived the design of Taj Mahal, in its miniature form, during his calm and peaceful stay here. During the revolt against the British in 1857 (the Indian Mutiny), Maharana Swaroop Singh (1842-61) gave protection to a number of European families, refugees from Neemuch, consisting mostly of women and children, in Jag Mandir.

Jag Mandir's most striking feature is the spacious courtyard, hemmed on the northern side by the garden courtyard of landscaped rose gardens, dotted with palm trees, jasmine bushes, bougainvillea and other flowering shrubs that attract hundreds of parakeets, pigeons, peacocks and other birds. There are cooling fountains and pools, all intersected by pathways lined with low marble balustrades. On the northern side is the *darikhana*, an open sided terrace with marble columns now converted into a lavish restaurant overlooking the lake. It is believed that Jag Mandir dates back to the 16<sup>th</sup> century when it was possibly referred to as 'Damdama Palace' and was used by Rana Udai Singh II. However the existing architectural masterpiece of the Gul Mahal and further extensions are credited to Rana Karan Singh in early 1600s and to Rana Jagat Singh I, after whom it is named. On the eastern end is the small Bara Patharon ka Mahal (Palace of the 12 stones) so named because of the twelve solid marble slabs used in its construction. The stately Gul Mahal and the Zanana Chambers (women's quarters) occupy the southern side. Occupying the western end of the island is the Kunwar

Pada ka Mahal (the Palace of the Crown Palace). For history lovers, there is Jagriti, a heritage museum on-site that tells you how the Jag Mandir Island Palace was built and developed over the centuries. In recent times, Udaipur's royal heritage properties have also been venues for grand weddings for celebrities and the rich.

### Jag Niwas

Rana Jagat Singh II laid the foundation stone of the Jag Niwas on April 17, 1743. It covers two and a half hectares of an island in the middle of Lake Pichola. The palace took about three years to build and was royally inaugurated on 20 January, 1746. A lavish ceremony was organised, according to the bard, Nandram who recorded the details in his lyrical poem *Jagat Vilas*. About 29 royal ladies including the Queen Mother of the Rana witnessed the three-day ceremony.

The erstwhile summer palace, ranked amongst the most beautiful palaces in the world, has now been converted into a luxury hotel. Its gleaming white marble, exquisite architecture, gorgeous interiors, lily and lotus pools, trellised alcoves, the fountains and sprawling courtyard, all combine to make it one of the most romantic palaces in the country. Perhaps *Mera Saaya* (starring Sunil Dutt and Sadhana in the lead roles) was the only Hindi film which brought out the beauty and brilliance of the Lake Palace in its full splendour in its songs, although the film itself was filmed in different locations of Udaipur.



**The Durbar Hall of Fateh Prakash Palace has magnificent chandeliers and portraits of Maharanas adorning the walls**

Pic: HRH Group of Hotels, Udaipur

### Museums

Maharana Ari Singh (1761-1773) built a three-arched gate on the Gangaur Ghat in 1762. Attached to it, the erstwhile Bagore ki Haveli is a wonderful place to spend the evening. Amarchand Badwa, the ex-Prime Minister of Mewar State, built the haveli during the reign of Mewar rulers. The *haveli* was the property of Mewar State till 1947. After Independence, the Government of Rajasthan used it for housing servants. It was handed over to the West Zone Cultural Centre (WZCC) in 1986. The entire structure was in ruins, and was carefully restored to its pristine glory by heritage experts. The *haveli* has 138 rooms, balconies, courtyards, terraces and many corridors. The glass and mirror inlay work in the haveli is preserved in its original form. Two peacocks made with small pieces of coloured glasses are unique reflection of the finest craftsmanship of Mewar.

Those interested in the local performing arts should surely visit the Bharatiya Lok Kala Mandal, a treasure house of Mewar's arts and crafts, founded by Padmashri Shri Devi Lal Samar in 1952. This cultural organisation has a group of traditional folk dancers, musicians and Tera Thali Players, always at the disposal of the museum to give a live performance. The museum has different sections dedicated to Rajasthani folk theatre, cultural wood crafts, Mehndi designs, floral designs and tribal

marriage paintings, dolls and crafts among others.

### Temples

Jagdish Temple near the City Palace is an Indo-Aryan temple, dedicated to Lord Vishnu. It was built by Maharana Jagat Singh in 1651 and is said to have taken 25 years for completion! Its 25-feet high platform — flanked by stone-elephants — is approached by a flight of steps. It has a pillared porch (*mandap*) and a sanctum (*garbha-griha*), which is crowned by a flat ribbed disc (*amalakar*) and a finial (*kalasa*). The platform has some intricate carvings. A shrine in front of the temple has a brass image of *Garuda*, the mythological bird.

### Other attractions

Among the many ornamental gardens that dot the landscape of Udaipur, two are most famous. One of them Sahelion Ki Bari (Garden of Maids) (1710-34 AD) is so called because the princess and royal ladies used to come here for a leisurely walk. It was built by Maharana Sangram Singh II in the mid-18<sup>th</sup> century for 48 young ladies in-waiting sent to the royal home, as a part of dowry. The extensive lawns displaying a marvellous range of *Bougainvillea*, the grove of trees, and the profusion of flowers present a treat to the eyes. Walking along the flowerbeds and the green lawns of the serene and peaceful



**A famous painting of Mewar**

Pic: [www.maharanapratap.net](http://www.maharanapratap.net)



**The Chini Chitrashala built in 1717 is well-known for its brilliant blue mosaics**

Pic: Md. Masarrath Ali Khan

garden, one feels completely in harmony with Nature. Gulab Bagh (Sajjan Niwas Bagh) is another fine garden of roses laid out by Maharana Sajjan Singh in 1881. Innumerable varieties of rose flowers bloom here and impregnate the air with their refreshing aroma. Gorgeous green trees flank the long roads and lawns. Maharana Fateh Singh (1884-1930) constructed the Victoria Hall here, which was officially opened in 1890 by then Viceroy, Lord Lansdowne. Now it houses the district library (Rajakeeya Saraswathi Bhavan) and a reading room, with abundant research material and ancient handwritten manuscripts for use by scholars, historians, and writers. There is also a small zoo which has panther, tiger, hyena, crocodile, geese, pigeons, grey ducks, and spot bills, peacocks and pelicans.

One should not miss a visit to the oft-ignored Manikyalal Verma garden atop the hill that is full of greenery and offers breathtakingly beautiful views of the scenery around.

A large bronze statue of Maharana Pratap riding on Chetak, his favourite horse is erected atop the Moti Magri Hill. The 'Hall of Heroes' (Veer Bhavan) has many huge paintings depicting the events of Mewar history. A huge exhibit encased in glass, showing the battlefield of Haldighati is preserved in the underground hall.

### Here evenings come alive

The **Mewar's Sound and Light Show** (*son et lumiere*), launched

in 2005, is virtually a combination of poetry, painting, theatre and opera, a truly magical experience by all means. The use of correct blend of sound and light, with the associated special effects to enact related history without any live actors is the central theme of the creative part of the content-rich-production. The deep baritone voice of Shriji Arvind Singh Mewar of Udaipur, the present custodian of the House of Mewar, welcomes guests at the start of the show and sets the mood for the evening.

The 12 episodes in the show, spanning one hour, recreate the devotion of the dynasty's founding father Bappa Rawal, the glory of Rani Padmini and Chittorgarh, the sacrifice of Panna Dhai before moving to present the establishment of Udaipur in the 16<sup>th</sup> century. The sounds of the tinkling bells, the shrieks of women, the cries of the soldiers in the battlefield, all are so carefully crafted into the show that one

feels as if one were witnessing all those momentous events in his mind's eye. In the end, the entire palace is lit up in bright golden light, with a sweet Rajasthani musical tune playing in the background! Watching the edifice shimmering in golden hue is a sight to behold. This is India's first and only sound and light show in the private sector.

Every evening, the Neem Chowk of Bagore ki Haveli (WZCC) comes alive with a cultural event namely Dharohar. This cultural entertainment programme showcases electrifying performances



**Puppet shows are popular with tourists and locals alike**

Pic: India Tourism

of the best original classical dancers, in collaboration with West Zone Cultural Centre. The most famous of all dances is the Bhavai, in which the dancer commences the dance with one or two pots on her head and goes on increasing the number of pots to 6-7-8-9. The most thrilling part comes when she starts dancing on the sharp cut pieces of glass. Her performance has to be seen to be believed.

### Shopper's paradise

Udaipur is a shopper's paradise and offers the best opportunity for buying arts and craft objects of the Mewar region. Udaipur's bazaars are stuffed with exquisite gold ornaments; hand dyed textiles, patchwork clothes, printed fabrics, miniature paintings and terracotta objects. The terracotta heroes, animals and objects and wall plaques are

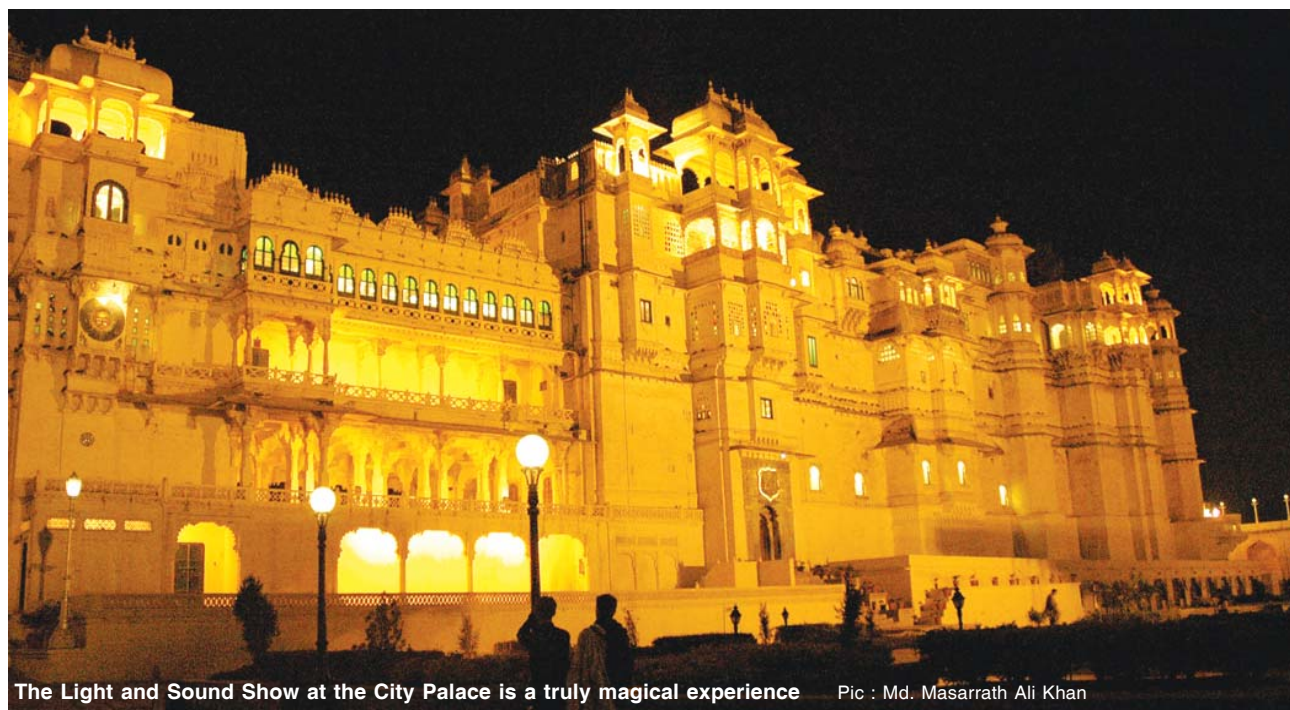


A miniature painting

Pic: Rajasthan Tourism Development

very popular here. Puppets are other interesting buys that come in a variety of forms and themes. The art of enamelware is used on silver, gold jewellery, brass, copper artifacts and pottery. The folk silver jewellery abounds in the bazaar's tiny shops! The wooden toys are masterpieces of folk art. Often, the miniature paintings of Udaipur are copies of the originals. Sometimes the artists use ancient parchment paper or paper with fine embellishments for their artwork. The paintings depicting trees, flowers, birds and Nature are very popular among foreign tourists. The Pichhwai paintings finished on cloth are detailed works of art. Those embellished with glass and semi-precious stones are fairly expensive. The

fascinating range of dyed and block printed fabrics, with embellished embroidery and other decorative options are the



The Light and Sound Show at the City Palace is a truly magical experience

Pic : Md. Masarrath Ali Khan



**A wall painting in Udaipur** Pic: Puneet Sahalot

brand signature of Udaipur. Innumerable textile shops selling bright colourful saris for all occasions flank the Maldass Street. It is always crowded with local women attired in bright vibrant multihued costumes.

Rajasthan Government Handicrafts emporium, Chetak Circle, Bapu Bazar, and Hathi Pol and Lake Palace Road near the Jagdish Temple are some good places to shop at. The state run handicrafts showroom at Chetak Circle is a good option for buying handicrafts. Hathi Pol is a good place to shop for white metal articles and textiles. If you want to buy silver and are not an expert in bargaining, it is best to shop at the government emporiums like the Rajasthali and Sadhana Emporium.

### Mewar School of paintings

Mewar was in the forefront in all fields of creative endeavours like art, architecture, music and devotional literature under such illustrious rulers as Maharana Kumbha and Sanga. Illustrated manuscripts produced at Chittorgarh, Dilwara, Ahar and Chawand from 13<sup>th</sup> century onwards, provides a continuous history of the Mewar School.

A Ragamala set painted at Chawand in 1605 by Nisardi is a landmark of this school followed by many masterpieces of Sahibdin, Manohar and others produced under Maharana Jagat Singh. Multi painting sets of Ramayana, Gita Govinda, Sur Sagar, Arsh Ramayana, Rasika Priya etc., were prepared in an unmistakably bold colourful and well defined style. These were followed by many large court paintings showing the Maharana in hunting expeditions or attending religious festivities. Portraits, sets of Ragamala paintings, divinities, and scenes of folk legends, were also produced in large numbers.

Nathdwara became an important religious and artistic centre after the installation of the image of Shrinathji (Lord Krishna)



**The most famous of all dances is the Bhavai, in which the dancer commences the dance with one or two pots on her head and goes on increasing the number of pots to 6-7-8-9.**  
Photo: Md. Masarrath Ali Khan

in the 17<sup>th</sup> century. Pictures and *pichwais* or large screen paintings showing Shrinathji decked in different festivals costumes were produced there for the devotees.

Other sub schools of Mewar are Devgarh, Sawr, Sirohi, Shahpura, Pratapgarh, Banswara and Dungarpur, each showing its own regional characteristic in a subtle but recognisable manner.

Many *havelis* (ancient mansions with spacious courtyards) line the streets of the city. Royal families and their servants once lived within the confines of these grand structures. The families often held positions of responsibility and commanded respect throughout the community. The royal family gave away many of the *havelis* to their retainers like barbers, priests, traders, artisans etc. The more impressive *havelis* were usually owned by the *Jagirdars* (land owners) from the nearby rural areas, who wanted a convenient home nearer the palace. These mansions have huge doorways decorated with colourful folk art of Mewar region. Sometimes, horsemen, elephants, parrots and peacocks were painted at the time of the family wedding. Many of these buildings have been converted into guest houses and hotels.



**Gangaur festival - women make clay images of Gauri and Isar and carry these images in a traditional procession**  
Pic: Jai Gakhreja

### Festive fun

September to March are the best months to visit Udaipur, but if you are interested in soaking the local art and culture, the best time to drop-in would be during the three-day Mewar Festival which commemorates the valour and gallantry of the Rajput kings.

On this occasion, the Udaipur city gets drenched in the colours of merriment and there is music and joy in the air. Mewar festival is the Festival of Spring or Rituraj, the king of seasons. It is celebrated in the Hindu month of Chaitra (Mar-Apr), which marks the onset of spring season and coincides with the Gangaur festival. The rituals of both festivals intermingle and provide rich glimpses into the history and culture of Mewar. Lt Col James Tod has given a vivid description of the Gangaur festival in his monumental work 'Annals and Antiquities of Rajasthan'. While married women worship Gauri to win their husband's love, seeking their health and happy long life, the young girls

do so seeking good husbands. Young girls and women of all ages adorn themselves in their best beautiful Bandhini print *ghaghra-choli* and *chunris* of vibrant shades. They also wear colourful bangles. Young girls apply *mehendi* (henna) on their palms and hands in a cheerful mood. A week after Holi, women bring clay and make images of Gauri and Isar (Parvati and Shiva) and carry these images in a traditional procession namely *Shobha Yatra*. Enthusiastic performers sing, dance, make merry and lead the procession, enjoying every moment of it. Evening teems with colourful Gangaur processions coming

from different directions, winding their way through all major roads and streets of the city and culminating in a grand procession at the Gangaur Ghat. Singing and dancing are an essential part of the festival. The Bagore ki Haveli, as well as the neighbouring buildings are bedecked in colourful lights and add a magical charm to the entire landscape. Thousands of young girls and married women gather at Gangaur Ghat to watch the vibrant celebrations. Colourfully dressed young men and women take charge of the boats. As the boat procession drifts away on the blue waters of Lake Pichhola, young girls present some of the finest cultural dances of Rajasthan while men accompany them on *dholak* and other musical instruments. Pichhola transforms into a sea of music and dance.



Udaipur is one destination whose mystique, magic, aura and ambience have always defied exposition and therein lies its true charm, beauty and enchantment. ■

The author is a freelance travel writer.

## Our Last Six Issues

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## New OIOP Club

Smt. T.S. Bafna Junior College of Arts & Com., Malad (West), Mumbai



Mrs. Hema Nair, Teacher, delivers the welcome speech. Also seen (l-r) Vice Principal Mrs. Sunita Mehta, Mrs. Sucharita R. Hegde, trustee and Managing Editor, OIOP, Anuradha Dhareshwar, Editor, OIOP



Mrs. Hegde presents the OIOP Club Membership Certificate to Mrs. Mehta



A view of the audience

## OIOP Club Activities

Rainwater Harvesting Workshop by Mr. Rahul Brid & Ms. Aksheta Sampath, resource persons (Eureka Forbes)



St. Anne's High School (English Medium), Borivali (W), Mumbai

**Rainwater Harvesting Workshop**



St. Charles High School, Santacruz (E), Mumbai

**First Aid Workshop by Dr. Annapurna Agarwal, Naturopath and Acupuncturist**



Shri. V.C. Gurukul High School Ghatkopar (E), Mumbai



Sanskar Vidyalaya, Kandivali (W), Mumbai



Shree D.J.Doshi Gurukul Eng. Med High School, Ghatkopar (E), Mumbai



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Nalanda English High School, Borivali (E), Mumbai



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R C Patel High School, Borivali (W), Mumbai

## OIOP Club Activities

### Disaster Management Workshop by Mr. A. Gopalakrishnan, resource person for OIOP



St. Charles High School, Santacruz (E), Mumbai



Sanskar Vidyalaya, Kandivali (W), Mumbai



Jnana Sarita High School, Mulund (W), Mumbai



SPS's Shree Mumbadevi Vidya Niketan Gorai, Borivali (W), Mumbai



Smt. S.T. Mehta English Medium High School, Ghatkopar (W), Mumbai



S.P.R. Jain Kanyashala, Ghatkopar (W), Mumbai



R J C C Degree College, Charni Road, Mumbai



Fr. Agnel Technical High School, Bandra (W), Mumbai



Dr. Antonio Da Silva Junior College, Dadar (W), Mumbai



Esplanade High School, Kandivali (W), Mumbai



Esplanade Jr. College, Kandivali (W), Mumbai



Swami Vivekanand High School, Chembur, Mumbai

## OIOP Club Activities

### Stress Management Workshop



Smt. J.B.Khot High School (Gujarati Medium) Borivali (East), Mumbai by Mr. Jinesh Modi

### Talk on self-confidence by Swamiji Swatmanandaji, Chinmaya Mission



Thakur College of Science & Comm College, Kandivali (W), Mumbai (For teachers)



Thakur College of Science & Comm College, Kandivali (W), Mumbai (For students)

### First Aid Workshop by Dr. Annapurna Agarwal, Naturopath and Acupuncturist



Dr. Antonio Da Silva Junior College, Dadar (W), Mumbai



Holy Angels' School, Dombivli (E)



I. B. Patel Vidyalaya, Goregaon, Mumbai

### Disaster Management Workshop by Mr. A. Gopalakrishnan, resource person for OIOP



Chandra Bhanu Sharma Junior College of Sci and Comm., Mumbai



Chandra Bhan Sharma College of Arts, Sci and Comm., Mumbai



Sardar Vallabhbai Patel V. Vidyalaya (Eng. Med) Kandivali (W), Mumbai



Sardar Vallabhbai Patel V. Vidyalaya (Guj. Med), Kandivali (W), Mumbai



Holy Angels' School, Dombivli (E)

### Value Education Workshop



Shri Dharamgyanand Swamiji from Ram Krishna Mission speaks at Kandivli Education Society's B K Shroff College of Arts & Comm., Kandivli (W), Mumbai

## “BPL families have a much higher social value system than the so called white collar community”

**Shubha Benurwar** is among the eight Community Development Officers (CDOs), who are closely associated with the implementation of the 1997 scheme called *Swaran Jayanti Shahari Rozgar Yojana* (SJSRY) in Mumbai. This poverty alleviation policy (PAP) funded by the centre and state in the ratio of 75:25 is to be implemented by the relevant local governments. The policy aims at imparting employment related skills to the urban poor and encouraging formation of self-help groups (SHG) to



Shubha Benurwar

promote thrift and credit among poor women, linking these SHGs to nationalised banks, and enabling them to become productive groups. The policy aims to create

sustainable livelihoods for the urban poor women, generally estimated to be around 93 million in India and the most vulnerable segment of the urban poor.

Mumbai is one metropolis where the success of the scheme is palpable, so much so that the Municipal Corporation has supplemented it with another similar policy in its own forward looking Gender Budget viz. Woman and Child Welfare Schemes. Shubha spoke to **Anuradha Kalhan** on the various aspects of the scheme and its success stories.

### How long have you been employed in the MCGM and in what capacity?

I am employed in MCGM since 1985; first as a social worker in school project and later as a Community Development Officer in Slum Improvement Department and then in Urban Poverty Eradication Cell (UPEC).

### How do Self Help Groups (SHGs) empower women in an urban setting?

SHGs/*Bachat Gat* (the local term for thrift and credit SHGs) aim to strengthen women by group bonding and group support and thus boost their self-

confidence. It also helps provide loan at reasonable low rates and also avail emergency loans in family crisis. SHGs also create awareness about formal banking system and help form a strong base for initiating group enterprise. One of the main objectives of SHGs is to remove family from perpetual loan trap of private money lenders and thus improve their economical/social condition.

### Does membership in SHGs help in the education of their children and their own training for livelihood?

Yes. The bank provides education loans to SHG members who have accounts in their bank. The members too have a good track record of having repaid/repaying their loans on regular bases.

### Does membership in SHGs alter their social consciousness and their value systems?

Yes. They see the bigger picture after undergoing different trainings. They help other women from their slum community to form SHGs and take advantage of different government

(Continued on page 41)

P.K. Nair is the original founder of the National Film Archive of India (NFAI). He began his life's mission as a Research Assistant in 1961 at the Film and Television Institute in Pune. He laid the foundations of archiving and worked diligently and passionately towards setting up the NFAI as an independent entity. From the FTII campus, the Archives were moved next door. In 1965, he was appointed Assistant Curator, and later was the Director.

Nair acquired 12,000 films — of which 8000 were Indian. The number of films thus obtained during Nair Sahab's stewardship bespeaks of the man's commitment to preserving India's cinematic heritage. What hurdles he must have confronted in a world filled with avarice and indifference can be imagined.

#### A man who lived and breathed cinema

One cannot quantify Nair sahab's accomplishments, for he was a man who was so passionate about cinema that many are the stories about him. He was invariably watching films till daybreak, meticulously taking notes by the beam of his small torch, when during the filming of *The Celluloid Man*, when he walked through the storage rooms, he'd touch a box and recall some feature of the print. Sometimes when he had overnight access to a print on loan, he was quick to make a copy of the same — for the Archives, of course. According to him, "A true archivist should have the immunity to overcome such legalities".

Nair's untiring enthusiasm for cinema was a blend of childlike glee and at the same time a gravity that intimidated the perky student and at the same time enthused those serious about the medium. Jaya Bhaduri, recalled being "the only girl at Nair Saab's late-night screenings" because he assured the hostel matron that she wasn't using the shows as an excuse to gad about the campus. Vidhu Vinod Chopra excitedly narrates how he was allowed a few hours' access to the print of *Breathless* so as to study Godard's technique. Another story goes about John Abraham

going to Nair sahab's house at 3 am and demanding to watch Pasolini's *The Gospel According to St. Mathew*. Nair went one step better and watched it with him. Then John discussed his film *Amma Ariyan* with Nair Sahab till breakfast. Such anecdotes depict a man so unconditionally in love with cinema that he willingly shared it with young filmmakers/actors on the threshold of a career and cineastes alike.

The film is woven with interviews of several filmmakers and film personalities who have been influenced directly and indirectly by P.K. Nair — including Saeed Akhtar Mirza, Gulzar,

Basu Chatterjee, Naseeruddin Shah, Kamal Haasan, Girish Kasaravalli, Jahnu Barua, Dilip Kumar, Saira Banu, Sitara Devi, Santosh Sivan, Rajkumar Hirani, Mahesh Bhatt, Yash Chopra, Ramesh Sippy and Mrinal Sen.

Besides the interviews, the film has rare footage from early Indian masterpieces like *Raja Harishchandra*, *Kaliya Mardan*, *Gallant Hearts*, *Marthanda Verma*, *Jamai Babu*, *Fearless Nadia*, *Sant Tukaram*, *Achut Kanya*, *Kismet*, *Chandralekha*, *Kalpana*, etc., that were archived by Mr. Nair.

What is not widely known is that 1700 silent films were made in India of which only nine survived, thanks to the efforts of P.K. Nair. He travelled to remote parts of India to collect and save cans of rare films. The fact that Dadasaheb Phalke is recognised today as the father of Indian cinema is Nair's doing. He was truly democratic as an archivist trying to save any film that he could get his hands on — be it world cinema, Hindi popular films or regional Indian cinema. He even took world cinema to the villages of India!

The credit of making us cineastes aware of restoration and preservation of our cinematic heritage goes to P.K. Nair. So it is only fitting that his work be documented aptly on film, *The Celluloid Man*, which is a tribute to an extraordinary man. ■

The writer is a veteran film journalist.

**The number of films thus obtained during Nair Sahab's stewardship bespeaks of the man's commitment to preserving India's cinematic heritage. What hurdles he must have confronted in a world filled with avarice and indifference can be imagined.**



#### Aarogyam

*Monsoons are here, and who wouldn't like to be out in rains, splashing water everywhere? Since health concerns accompany rains often, it is very important that you take care of your health and take suitable precautions. Fungal infections in feet are a common hazard during monsoons. It can be avoided by keeping your feet clean and dry always, especially the area between your toes. Wear open shoes and sandals instead of closed shoes. Clean your feet with lukewarm water after returning from outdoors. Take care and enjoy the monsoons.*

# Saving the soil

(Continued from page 16)

Soil and water conservation measures have become more relevant to combat the challenges of climate change and sustain the agriculture production. The goal is to improve people's standard of living without damaging the environment. Successful planning and implementation of soil and water conservation measures through watershed management requires that the technologies are suitable and adaptable to specific climate and topographical conditions, population, crop types and agricultural practices, institutional capacities ensuring benefits to all sections of society in the watershed.

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*Dr. A.K. Tiwari is Principal Scientist & Head at Central Soil & Water Conservation Research & Training Institute (CSWCRTI) Research Centre, Chandigarh.*



He has vast and varied experience of research in the field of hydrology, soil and water conservation, water harvesting and watershed management. He has more than 150 publications to his credit including research papers, book chapters, bulletins, reports and excerpts in proceedings of national and international conferences.



*Dr. Sharmishtha Pal is a Scientist (Soil Chemistry and Fertility) at the Centre. She is a recipient of numerous prestigious awards, most important of which are Young Scientist Award from Indian Science Congress Association, Jawaharlal Nehru Award from Indian Council of Agricultural Research.*

(Continued from page 38)

schemes. Through my experience over the years of working with poverty line families, I feel they have a much higher social value system than the so called white collar community. They are always ready to share whatever meagre things they possess with those who are less fortunate or are in worse condition than them.

**Does membership in SHGs help to build up their own savings in banks, obtain loans and undertake productive/income generating ventures?**

Yes. SHGs have to build up their own savings for one year through regular monthly meetings and keep a record of it, before receiving a one-time revolving fund of ₹2000 per member under SJSRY scheme. Most of the SHGs are encouraged to conduct vocational trainings and Entrepreneur Development Training and start small/micro group ventures; e.g. artificial jewellery, jute/cloth/leather bags, paper conversion, catering etc. The women doing individual business e.g. *Bhangar* business (scrap collection and recycling), vegetable vendors, dry/wet fish selling, fruit business etc., are also brought together and given Entrepreneur Development Training, which increases their profit margin.

**What do these SHGs need for further growth, from the government and society at large?**

A study conducted on the working of SHGs put forward many suggestions and recommendations. The local government level efforts should be made to form SHGs for the poor urban women and both state and central government should work hand in hand to promote the concept of SHGs without political biases and selfish motives, taking into account the welfare of the womenfolk by allocating more grant in the budget

and developing effective implementing machinery. It was also suggested that a permanent machinery to guide, support be provided along with necessary knowledge/training inputs and markets to these SHGs.

There is also a need to have conducive atmosphere and harmonious network among government agencies, banks, NGOs and other service organisations. Financial institutions should work with open mind and social motive to promote SHGs in order to bring them into the main stream of development and growth of India.

**The local government level efforts should be made to form SHGs for the poor urban women and both state and central government should work hand in hand to promote the concept of SHGs without political biases and selfish motives by allocating more grant in the budget and developing effective implementing machinery.**

Here are a few suggestions made:

- SHGs should be encouraged as well as provided with knowledge inputs to undertake sustainable economic activities which will provide regular income to the group.
- Linkage of urban and rural SHGs will give better profit margin to farmers/artisans and cheaper/better quality goods to urban population/ citizens.
- They can be encouraged to form co-operative societies to promote

cottage industries for which raw materials and resources are available abundantly in and around rural and tribal areas.

- Joint efforts should be made by Government, Local Self Government, NGOs/CBOs (Community Based Organisations) and women to formation and promotion of SHGs.
- Private Sector should be encouraged to give training and provide work to SHGs. Their efforts should be appreciated by felicitation and giving Special Tax discount to such industries in the private sector. Public Private Participation (PPP) will strengthen this programme to a great extent.

**On the basis of my own field work, I can say that the policy implementation in Mumbai in terms of the number of SHGs, the maturity of SHGs, the number of SHGs who are undertaking productive activity is way ahead of the other metropolitan centre like Delhi. What hurdles did you face at the community level, at the MCGM level, at the follow up level?**

At the community level, the main problem is convincing people. As it is, MCGM/Government has a negative image with poor people, especially slum dwellers, as they face slum demolition and other harassment from authorities. Slum residents also find it difficult to put their trust in any new scheme, even if it is floated by government, as they have been deceived by unscrupulous elements in the past when dealing with money. Even migrant population have very little or no faith in these schemes. Unlike rural areas, people in urban areas, poor or rich, lead a busy life and women too have little time to dedicate to form SHGs or to take vocational training or involve in a group business. There are also those who think that they are too old to learn

any new vocation. Even after forming SHGs, we find it difficult to get members who can manage its affairs since most of them have little or no formal education and have very low self-esteem. The other hurdle faced is at the government level and also when dealing with banks. Banks are little skeptical about associating with social sector, perhaps because of their previous negative experiences with some.

An issue that needs to be tackled is the BPL survey, which is a long process considering over populated metros. By the time the BPL list is released, most of these families have shifted to some new place. It becomes difficult to locate them then.

Also, SHGs receive no concession in tender deposit for Government/Semi Government Tender process in spite of policy/GR. There is also a need for a reserved quota in government contracts to ensure proper and continuous government support.

SHGs need continuous guidance and support as they tend to have a low sustenance capacity. Many a times, the community development officers are unable to keep regular contacts with SHGs or help in regular basis as they are tied up with work load. So it is necessary to set up a special centre for the SHGs so that their work is supervised regularly and SHGs get support and help as and when required.

**What are the problems SHGs face in metros like Mumbai? Unlike rural areas, in metros space, raw material costs for productive activity are prohibitive even though the markets are right there.**

Problems faced by SHGs in metro cities, especially Mumbai are varied. First, it is difficult to find office space at an affordable rent. Finding a steady market is another problem since consumers have lot of choices when it comes to low

priced products. In today's times, it is imperative that we stay in touch with new development in business be it launching new products or new designs. For this, relevant training is necessary from time to time but as of now there is only one round of basic training provided in SJSRY. This is not enough. In metros, women from lower socio economic group are burdened with household responsibilities and little family support, hence giving time to SHGs becomes a constraint.

The SHGs also face many problems that any small enterprise would face such as inconsistency in supply of raw materials, etc.

**An issue that needs to be tackled is the BPL survey, which is a long process considering over populated metros. By the time the BPL list is released, most of these families have shifted to some new place. It becomes difficult to locate them then.**

**What in your opinion are the reasons for its relative success in Mumbai compared to other metros like Delhi?**

It is important to mention here that none of the Government schemes for BPL families mention the specific personnel responsible for the implementation of the schemes. That is the reason one finds different staff/officers i.e. clerks, head clerks, engineers, factory inspectors etc., of local self government implementing such schemes. The success of MCGM is mainly because it

has a separate department in the form of UPEC totally devoted to the scheme and ably supported by trained professionals and dedicated staff. There is continuity in implementation of the scheme by the same staff which has won over the confidence of the people which is most potent aspect in implementation of schemes for below poverty line families.

**How does Mumbai compare with Kerala's experience where they have networked the whole state into SHGs and their federations and where these federations find representation in preparation of local and district level economic plans under Kudumbashree?**

I cannot compare the two as I have no experience with the Kerala scheme. What I heard is there was one I.A.S officer who initiated as well as headed the scheme for more than ten years and developed non economical criteria depending on the conditions of families below poverty line families. The BPL survey was conducted on the criteria developed by Kerala state, not by general criteria provided by Central government. This made the scheme more people oriented and feasible. There was continuity maintained in implementation of the scheme as the same officer was heading the scheme and CDSs were involved in decision making/implementation.

**Who do you report to in the Corporation? Who sets your goals and reviews your performance?**

The head of UPEC is Assistant Commissioner (Planning) and below him, a Project Officer, under whom there are seven Community Development Officers and 11 Community Organisers (temporary workers). All are senior officers and monthly reports are given to the office. The financial and physical

targets/goals are given by State Government/Directorate of municipal administration. Trimonthly M.I.S. reports are sent to Directorate of Municipal Administration. All the reports are basically of financial nature. The success of the implementation of poverty alleviation schemes is mainly measured by the funds spent.

The changes brought in the poverty line families/women, their thinking process, confidence, participation in decision making, position in family is never evaluated/measured i.e. the qualitative impact of the scheme is not measured.

#### **What kind and how frequent are the training programmes you undergo?**

I have attended around five training programmes in my 32 years of service, which is very few by any standards. Unfortunately, most of the training

programmes I attended are arranged to exhaust the funds allotted for training purpose, rather than oriented towards giving knowledge inputs/solving problems faced while implementation of the scheme.

#### **What kind of work is undertaken by SHGs, CDS/Neighbourhood Committees as a social responsibility?**

We arrange and impart vocational training for new SHGs. We also actively participate in activities of various NGOs viz. Snehalay, Alert India, Disha project, UNICEF etc. Educational visits are arranged to see other social work projects/orphanages/cooperative banks managed by women to sensitise them towards under privileged groups of the city and to provide assistance. After one such visit to Snehalay orphanage in Ahmednagar, women of SHGs in

Ghatkopar, Kurla, Santacruz and Malad raised funds to give new clothes to all 350 inmates who are HIV affected/orphan children. They also provided educational help and new clothes to 44 children of Aai orphanage in Beed district. SHGs of N ward helped a farmer family from Vidarbha, where both parents donated kidney to their children in KEM hospital. They provided them food, collected money for medicines and arranged for their stay in a *dharmashala*. There are many such social activities undertaken by SHGs.

Health camps are arranged and steps are also taken to provide educational materials to the family members of SHG members. We also arrange study centres for children from poor families. ■

**Anuradha Kalhan is Lecturer, Dept of Economics, Jai Hind College, Mumbai.**



# A new step for Pakistan, a new hope for India

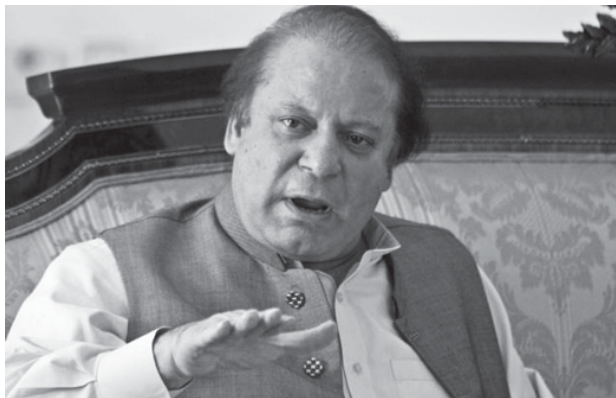
There is so much for India to be happy at the recent developments in Pakistan and to look forward for better bilateral relations between the two countries. But will Nawaz Sharif be able to go ahead with his plans?, asks **Dr. P. M. Kamath.**

**N**awaz Sharif, leader of the Pakistan's Muslim League-N (PML-N) has been elected to Pakistan's Federal Parliament in May 2013 general elections. He was twice elected earlier, but on both occasions his term was cut short by the intervention of the Army. Sharif's third term is extremely significant for democracy in Pakistan and the spread of democracy, globally and more specifically in South Asia in several ways. It has in particular direct impact on India-Pakistan bilateral relations.

## Improving content of democracy

First, it is the first time in the history of Pakistan that a democratically elected government is handing over power to another democratically elected government without any hitch. Second, the outgoing government for the first time has the unique record and honour of completing full five years' term. Third, for the first time, a democracy succeeds another democracy through a democratic election. In the past, an elected government has always been succeeded by a military government through a coup, most of them accompanied by spilling of blood. Subsequent elections have always been held because of global pressure on military and military's own sense of

fatigue in running the government that led to the holding of an election. Hence, this democratic succession should be a cause for celebrations all over the world at least by those who are committed to spread and success of democratic rule.



Will he be able to go ahead with his plans?

## South Asian Perspective

The South Asian Association for Regional Cooperation (SAARC) was formed in 1985 for accelerated economic development and prosperity through regional cooperation. But India-Pakistan conflicts and regional rivalries have always overshadowed issues of economic and trade cooperation. Though the SAARC Charter prohibits discussion of any bilateral issues, India and Pakistan being two large countries, their rivalries have created frustration amongst the smaller SAARC members, thereby stunting regional cooperation.

An effort to break old habits of conflicts was made by the former Pakistani government led by Pakistan's People's

Party (PPP). It had taken a bold step when the then Prime Minister, Yusuf Gilani announced his decision to grant Most Favoured Nation (MFN) status to India as India had unilaterally conferred MFN on Pakistan in 1996. But PPP

government could not carry out its decision under Pakistani Army-inspired opposition to India getting MFN status manifested by its terrorist stooge, Hafiz Sayeed and his instrument of terrorism—Lashker-e-Toiba. If Nawaz Sharif's government carries out this decision, it could strengthen Pakistani democracy further by promoting bipartisan approach to India-Pakistan bilateral

issues. At the same time, it could increase India's positive attitude towards the Pakistani government. This should also help Pakistan in arresting their sliding economy.

## India and Nawaz Sharif

There is so much for India to be happy at the recent developments in Pakistan and to look forward for better bilateral relations between the two countries. It is particularly so, because as the Prime Minister for the second time in the 1990s, Nawaz Sharif was determined to improve relations with India. Prior to February 1999 visit of Atal Behari Vajpayee, the then Indian Prime Minister to Lahore, Nawaz Sharif in January

1999 had said: "While 1998 was the year of world reawakening over Kashmir, 1999 will ...be the year of solution of this issue." This was despite the then BJP stand that India is asking "Pakistan to give up Pakistan Occupied Kashmir (POK) prior to any negotiations." It was, of course, a bargaining stand. However, then leaders from both the sides had spoken of turning of Line of Control into international border between the two. During his campaign in May this year, Nawaz Sharif pronounced his stand that he would like to maintain cordial relations with India. Kashmir issue apart, Sharif is a man completely committed to democracy. After he was sworn in as the PM, his statement included a strong commitment to preservation of democracy. He said: "We should strengthen democracy to close all doors for dictatorship" to reemerge. When he said it, he appeared convincing as he was deposed by General Pervez Musharraf in October 1999, a person whom he had appointed as his chosen man by superseding a few other generals! In another sense, Sharif should thank Musharraf because though he deposed, jailed, and banished Sharif to Saudi Arabia, he spared his life—albeit owing to American pressure so that he could one day see the same military general that tormented him, jailed and eventually banished from Pakistan! This is in great contrast to what Zia-ul-Haq did to another elected Prime Minister—Zulfikar Ali Bhutto in 1978 who was deposed, imprisoned and executed through a judicial verdict. Present development, in retrospect, is also a part of gradual rooting of democracy in Pakistani soil! Yet, Sharif has reasons to be angry with Musharraf, for he remembers how he was handcuffed, and imprisoned; while living a banished leader's life in Saudi Arabia he was refused permission to return to Pakistan when he lost his father. It is natural for Nawaz Sharif to be bitter against Musharraf. Another issue that Sharif has

legitimately raised is the role of Army in Pakistan. He has promised to tame the Army and limit the ISI—notorious Inter State Intelligence. He has promised to investigate the role of Army in the Kargil War, ISI role in 26/11 and hold talks with Taliban. On these counts, Pakistani analysts are skeptical on the abilities of Nawaz Sharif, in the background of failed similar efforts of Zardari in the previous government. But there are two factors which might help Sharif, if he moves gradually, to a greater extent than his predecessors like Gilani or Zardari. First,

**Domestic issues seem to be more pressing to the Pakistan government than foreign policy issues in relation with India. India will also do well in not rushing through early negotiations with Nawaz Sharif for a variety of reasons.**

Army and ISI were considerably discredited by the US expose on Pakistani Army's duplicity in maintaining Osama bin Laden in an Army's hideout right under the tight security of military cantonment area at Abbottabad, while denying any knowledge of his whereabouts! Second, Sharif has retained with himself portfolios of Defence as well as Foreign Affairs. Another major problem he would face is his plans to reach a negotiated settlement with terrorists led by the Pakistani Taliban.

### Conclusions

But question is: will he be able to go ahead with his plans? Domestic issues

which plague Pakistan are: Economic recovery, acute shortage of power with a 14-hrs load shedding, and the issue of galloping prices of gasoline. These seem to be more pressing to the government than foreign policy issues in relation with India. India will also do well in not rushing through early negotiations with Nawaz Sharif for a variety of reasons. Primarily because of past experiences with democratic governments, Pakistani Army's warning to Nawaz Sharif to go slow on his impulses to improve relations with India. Pakistan's policy towards India and Afghanistan are considered as core issues of interest by the Army.

The present Indian domestic situation also seems to be non-conducive for resolving major problems in India-Pakistan relations. Though for next general elections there is still eleven months, government seems to have been reduced to a lame duck government so early in its tenure. This may also be a blessing in disguise, in view of the Prime Minister's one-point programme of his long innings in government: To go down in the history of India-Pakistan relations as the one who resolved, for all time to come, all long pending problems with Pakistan. If that is too idealistic, at least he would like to resolve, the thorny problem of Kashmir. But Nawaz Sharif will do well to wait, till he sees out Zardari in September and General Pervez Kayani, present Army Chief in November 2013 before plunging into a radical change in his India policy! ■

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# Dealing with the Dragon

Even as we continue with our policy of improving our trade and economic relations at the bilateral level and also cooperate with China, as far as possible on key global issues dividing the North and the South, we should have no illusions on the border dispute. It should be made clear to China that all bets are off as far as the border issue is concerned, says **B. Ramesh Babu**.

**O**NE not so fine a morning in May 2013, the news of Chinese setting up camps 19 kilometres inside Indian territory in northern Kashmir shocked the whole nation. Suddenly Daulat Beg Oldie became the byword for the perfidy of the Chinese. As usual the Government of India's response was diffident and chaotic. Every effort was made to downplay the unprovoked intrusion. As always, different top leaders spoke in divergent voices. Again, as always the pro-China spin doctors on the Indian side came out with their "expert" assessment that such things happen in the high Himalayas because the Line of Actual Control (LAC) is not demarcated! One of the more wild explanations of this ilk was that it was the Chinese way of pushing the border issue to the front burner!

When the Chinese refused to budge even after three flag meetings between the two field commandants, India woke up to the gravity of the threat on the border and the serious implications involved. By setting up camps in an area that was merely patrolled by both sides so far, the Chinese have succeeded in pushing the LAC southward in the region. This is in line with their long established strategy of "cartographic aggression" by installments. What is even more dangerous is the assertion by a Chinese expert that he does not see any lack of coordination between the top political leadership in Beijing and the People's Liberation Army's activities on the ground far away in northern Kashmir. This is indeed quite a contrast to India's

inept and confused initial response.

Once our side realised the gravity of the lurking danger, there was an appropriate counter action on the ground and the diplomatic channel was also geared up simultaneously. Even at this stage a golden opportunity to demonstrate our strong protest was lost. The ignominy of our External Affairs Minister insisting on visiting China as scheduled to work on the modalities of Premier Li's visit due in May as though nothing was amiss between the two countries continued for days. This was indeed absurd. It so happened that our military delegation was in Beijing at this juncture to discuss the details of a future joint military exercise against terrorism to be held in China. A more alert and brave India would have used the opportunity to immediately recall the military delegation in protest. Instead the two sides carried on with their routine and it was announced that the joint military exercise would be held on October 2013 and the exact dates would be announced later. This is indeed incomprehensible and outrageous. The most charitable interpretation that could be offered on this lost opportunity is that in New Delhi the right hand did not know what the left was doing. Is it too much to ask that the Department of Defence and the Ministry of External Affairs work in tandem, especially when such a serious crisis was on hand?

External Affairs Minister Salman Khurshid's insistence on going to Beijing at this time so that the forthcoming visit of Premier Li is not jeopardized is indeed pathetic. It seemed as though our side

is more worried on this score than the Chinese. There is no denying the fact that Li's visit is important and that he chose to come to India in the first leg of his very first foreign trip after taking over is also significant in a symbolic way. However, there was no need to go out of the way and behave as though Premier Li is conferring a favour on India by choosing to come here first. A more mature and confident response to the visit was called for.

In fact things began to happen only after the contingency of India calling off Premier Li's visit was hinted through the regular diplomatic channel and our soldiers started patrolling close to the Chinese camps at Daulat Beg Oldie! Suddenly it was announced that the crisis had eased and both sides agreed to withdraw their forces and restore the status quo ante in the region! The Chinese soldiers folded their tents and left the Deshpang Valley, for the present? Since our forces did not cross the LAC in the region, it was not clear as to where and to what point Indian forces were to withdraw. May be, ambiguities have their uses in such critical situations. From Beijing, Kurshid declared that he was satisfied at the manner in which the crisis was resolved. He said that he did not seek to find why the other side precipitated the crisis. Naturally, the Chinese were not volunteering any explanation.

Premier Li came as scheduled and a number of MOUs were signed. Both sides indulged in the usual platitudes regarding the need to keep the border

quiet and to resolve the complex challenge peacefully, etc. Li said the usual good things about how the two big nations of Asia should work together for stability and prosperity of Asia and the world. Li said that the visit was meant "to demonstrate the high importance China attaches to India." The huge negative trade balance of India came up for scrutiny. Naturally, the Chinese were keen on expanding their trade and investments all over the world than worry about the challenges facing India in the Chinese market. There was no word about India's membership of the UN Security Council. The joint statement issued at the end of the visit affirmed the determination of the two countries to not allow their territories for hostile activities against each other. Significantly, the usual standard declaration on Tibet being an integral part of China did not figure in the joint statement. On the whole the outcome of the visit was less than the hype that preceded it.

It is very important to highlight the not so well publicised second Chinese

intrusion in the region just two days before Li actually landed in India. This is a clear indication of the evil designs of China, the most dangerous and proximate enemy of India. The six decades of our experience in dealing with China on the border, clearly tells us not to trust the devious and mighty dragon. The more recent experience in dealing with China reveals that as far as the border is concerned only tit for tat at every turn works. Even as we continue with our policy of improving our trade and economic relations at the bilateral level and also cooperate with her as far as possible on key global issues dividing the North and the South, we should have no illusions on the border dispute. It should be made clear to China that all bets are off as far as the border issue is concerned. The loose talk of expanded trade and high economic stakes softening things in the long run is a mirage.

Growing India-US proximity is said to be one of the key worries of China. China is also anxious about Taiwan, Tibet and Islamic terrorism. Assuaging China's anxieties is not our priority. We should

enhance our strategic ties with the US to the maximum possible extent. We should expand and deepen our bilateral relations with Japan quickly. Prime Minister Manmohan Singh's recent visit to Japan and Thailand happened at the most propitious time. Many ASEAN countries are worried about the Chinese aggressive escalation of the hitherto dormant territorial disputes in the region. India should give moral and diplomatic support to the beleaguered countries so as to help a peaceful settlement of these turf wars because they are all the outcomes of the aggressive imperial claims of China, in many ways similar to our border dispute with China. ■

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## Saving the soil

(Continued from page 16)

Soil and water conservation measures have become more relevant to combat the challenges of climate change and sustain the agriculture production. The goal is to improve people's standard of living without damaging the environment. Successful planning and implementation of soil and water conservation measures through watershed management requires that the technologies are suitable and adaptable to specific climate and topographical conditions, population, crop types and agricultural practices, institutional capacities ensuring benefits to all sections of society in the watershed.

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**Dr. A.K. Tiwari is Principal Scientist & Head at Central Soil & Water Conservation Research & Training Institute (CSWCRTI) Research Centre, Chandigarh.** He has vast and varied experience of research in the field of hydrology, soil and water conservation, water harvesting and watershed management. He has more than 150 publications to his credit including research papers, book chapters, bulletins, reports and excerpts in proceedings of national and international conferences.



**Dr. Sharmistha Pal is a Scientist (Soil Chemistry and Fertility) at the Centre.** She is a recipient of numerous prestigious awards, most important of which are Young Scientist Award from Indian Science Congress Association, Jawaharlal Nehru Award from Indian Council of Agricultural Research.

# Galloping population, a huge concern

With 1.27 billion people and still growing, India is getting dangerously overcrowded. On the occasion of the World Population Day observed on July 11, **Dr. Devendra Kothari** highlights the population concerns faced by India. He feels that the population and related issues have not been given due importance in the development debate of India.

**T**he World Population Day, annually observed on July 11, was instituted in 1989 as an outgrowth of the Day of Five Billion, marked on July 11, 1987. It is an occasion to engage people, spur commitment and spark actions related to the opportunities and challenges presented by the growing population.

### Population and development are inter related

From Adam Smith onward, economists have recognised important linkages between population and socio-economic development. Yet, the attention given to these linkages in current development thinking in India is not very clear. This is because one can argue that it is not rapid population growth but rather weak government, corruption and social injustices that are preventing economic and social development. The counter argument is that rapid population growth exacerbates the problems of governance, corruption and social injustice. However, one has to recognise that population is an important factor in development, especially when it is growing seemingly out of control, since it leads to a significant diversion of national investable resources to consumption which could otherwise be used for increasing investment and productivity and for improving the quality of public services such as education, health, sanitation, provision of safe drinking water, etc.



**It is not enough to have lots of young people — these young people need to be properly educated to fully contribute to the economy.**

### ‘Demographic Dividend’ - a rosy picture ?

With 1.27 billion or 127 crore people and still growing, India is getting dangerously overcrowded. India is currently the second most populous nation in the world. It will surpass China as the most populous within 8-10 years. India's population is projected to peak at 1.7 billion in 2060. China at its peak in 2025 will have 1.4 billion people. In fact, when China peaks, India will have already surpassed it in population. Many Indians including policy makers see these emerging demographics as a critical advantage in competition with the nation it regards as its chief rival – China. They argue that China will get

old before it gets rich, and India will reach middle income status while it is still young; thus we are frequently reminded of our demographic dividend. With around 70% of the population under 35, India can afford to dream to become an economic power in the world before the middle of this century. However underneath, this rosy outlook for India epitomizing the country's ability to surpass China on the back of a younger population lays some difficulties, especially deteriorating level of education. It is not enough to have lots of young people — these young people need to be properly educated to fully contribute to the economy. Today, more children are going to school but what

they are learning is not clear. The Annual Status of Education Report 2012 by Pratham shows that the number of Class V students who cannot read a Class II level text or solve a simple arithmetic problem has increased. In 2010, 46.3% of children in this category failed to make the cut and this shot up to 51.8% in 2011 and 53.2% in 2012. Can they get any job in the market if they continue such education? Can industry get the professionals it is looking for?

### Population growth concerns

Current population growth in India is mainly fueled by unwanted fertility. It is estimated that currently there are around 460 million people out of 1270 million in India who are product of unintended/unplanned pregnancies, and most of them are from the lower economic strata. The consequences of unwanted fertility are serious, slowing down the process of socio-economic development. It is because unwanted childbearing results in poor physical growth, reduced school performance, diminished concentration in daily tasks thus impacting work capacity and work output resulting in diminished earning capacity. The impact of this is reflected in widespread hunger, poverty, unemployment, weak governance as well as increasing scarcity of basic resources like food, water and space in several parts of India despite concerted developmental efforts since 1991.

### Family Planning Programme needs total revamp

How to manage unwanted fertility? A popularly held belief by India's policy makers is that as a country becomes economically more prosperous, its fertility declines significantly and leads to a stable population. However, this is a simplistic view of a complex phenomenon. Since the introduction of market-based economic reforms in 1991, India has become one of the

fastest growing major economies in the world. The reforms completed 20 years in July 2011, however, during this period, India's population increased by 365 million, much more than the population of USA - the third most populous country in the world. This raises the question: Is Development the Best Contraceptive? It is argued that there is a need to go beyond the prevailing notion that socio-economic development is an essential precondition for fertility transition, since it provided only a partial explanation for the monumental changes taking place in fertility behaviour, especially in low-income economies like Bangladesh.

More than four in ten pregnancies are unintended by the women who experience them, and half or more of these pregnancies result in births that spur continued population growth. While India's population continues to grow by 17-18 million people annually, 15 million married women in the reproductive ages, mostly in the Four Large North Indian (FLNI) States of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh, seek to postpone childbearing, space births, or stop having children, but are not using a modern method of contraception that is having unmet need for family planning services. Often, these women travel far from their communities to reach a government health facility, only to return home **"empty handed"** due to shortages, stock outs, lack of choices and/or non availability of doctors and paramedical staff. When women are thus turned away, they are unable to protect themselves from unwanted pregnancies. Approximately two-thirds of such pregnancies resulted from non-use of contraceptives; clearly indicating the need for easy availability of quality family planning services. The programme has largely failed to encourage the use of reversible methods, particularly among young women (15-25) who are in the most fertile years of their reproductive period. In addition, around one-third of unintended pregnancies resulted from

the ineffective use of contraceptives, which suggests the need for improved counselling and follow-up of couples that adopt a method. In other words, there is a tremendous need to revamp the family planning programme in India to provide services looking to the needs of clients.

FLNI States can learn from AP Incidence of unintended frequencies can be dramatically reduced, if not eliminated, within a decade by revamping family planning programme, as has been done in Andhra Pradesh. If Andhra - with little outside help - can manage its galloping population issue under relatively low literacy and high poverty, there is no reason why FLNI States, with lesser problems and with increasingly generous support from the Centre under NRHM, should fail so spectacularly in managing unwanted fertility. It appears that the population and related issues have not been given due importance in the development debate of India. Demography, therefore, in the next 10 years or so will pose serious challenges to economic growth, democracy and national unity by its sheer size. The writing is on wall. The question is not whether we act or not, but whether we act now or later and deal with much more dire and expensive consequences. ■

The writer, a Population and Development Analyst, is currently associated with the Forum for Population Action - an advocacy group on population and development, as its Hon. Secretary. He is also a Visiting Professor at the Institute of Health Management Research (IIHMR), Jaipur. Dr. Kothari was appointed as a Chairperson of the National Committee to review the implementation of the family welfare programme by the Ministry of Health and Family Welfare, Government of India (2000). He blogs on Population and Development at [Kotharionindia.blogspot.com](http://Kotharionindia.blogspot.com)



to increase awareness about issues that directly impact population growth and sustainable development.

# Reservations...for how long?

**Vandita Morarka** is an aspiring lawyer with a view to change the world. A wannabe writer, Vandita is also a adrenaline junkie, searching for an adventure that would scare her enough to refuse participation.

*"Is desh main do bharat baste hain." - Amitabh Bachchan, in the film Arakshan.*

**I**t was under Dr. B.R. Ambedkar that a system of reservation found its way into the civil services, schools, colleges etc., for members of the previously oppressed scheduled castes and scheduled tribes. Following India's history of division on the basis of caste, such reservation was necessary. The policy of reservation was aimed at eradicating socio-economic inequalities and providing opportunities for the oppressed sections of Indian Society. Though meant to be reviewed periodically and stopped after a few years of progress, Reservation seems to be here to stay. Has it become just another political pawn? Or is it that there has been no progress? Or is it an issue too sensitive to be tackled by any politician? The Mandalisation of the country post 1990 has had a profound effect on the Indian economic-political scenario. I wonder if providing further representation to other backward classes has just led our country into a journey of backwardness. Is the Indian Reservation Policy the only way to attain our constitutional goal of social justice and empowerment? Maybe, what is needed is a review of the relevance of such a system. Perhaps, it is time to realise that we are approaching the problem at the wrong end. The issue of 'Reservation' is a strongly debated topic in our country, evoking mixed response. While one section criticises it as vote bank politics, which



**Vandita Morarka**

discourages a merit based system, the other sees it as encouraging equality. About 50% of the seats in most universities are reserved for SC's, ST's, OBC's etc. with lower cutoffs too. Also, obtaining fake caste certificates has become a child's play. In the process, it is the general category students who lose out despite getting high percentage. Each year with the tension of results is the added tension of most seats being reserved anyway! Shouldn't we try solving this problem another way? Education must be provided to everybody; agreed, but why provide it to one at the expense of another? If reserving seats at the education level is not enough, then there are reservations now for jobs also and even

for 'promotions' at work places. Caste, Religion, Gender etc., are the criteria for admission and jobs when all that should matter are the talent and efficacy of the person. There is no reservation for those born without a specific gender; instead we have reservations for 'NRI's' and a widely acknowledged 'Management Quota'. There is an urgent need to provide quality primary education to all, irrespective of what amount of fees they can pay. We need more top notch government institutes for higher education and more job opportunities for the youth of our country. This system tends to divide more than unite. It feeds divisive politics; political candidates are not decided on merit but on the religion they follow or the caste they belong to. Reservation is good and it is required, but to what extent? And for how long? Corruption of every kind is rife where the quota system is present; it has become a part of how the wheels of the system run. Although this system has its pros, the cons have long begun to outweigh them. We need to change; our attitudes have to change. Reservations have made us lax. Yes, they help the 'backward' get admissions and jobs, but at what cost? In a country where only a small percentage of our population pays taxes what can even be defined as backward?! Our country needs progress; reservation, with time, has become more of a hindrance than a stepping stone to progress. The system definitely needs an overhaul. ■

# Don't marginalise rural health

The Jan Swasthya Sahyog (JSS), a rural health initiative, has been successfully tackling rural health problems in Chattisgarh. Why can't such good practices be replicated all over India to bring rural healthcare to the forefront?



**Bharat Dogra**

is a Delhi-based freelance journalist who writes on social concerns.

**I**N recent years, a rural health initiative in Chattisgarh called Jan Swasthya Sahyog (JSS) has attracted widespread attention and admiration for its significant achievements in a relatively short time. Its community health effort and rural hospital are located in Bilaspur district, although patients also come here from a much larger area of Chattisgarh and Madhya Pradesh. One of the main lessons emerging from this initiative is that rural health is a serious issue and should never be marginalised at policy levels.

Just sitting for a little over half-an-hour at the Bamhni sub-centre with doctors of the JSS was very instructive. First came a middle-aged woman from a potter family. She is in an advanced stage of cervix cancer. She'll have to be sent to another hospital for a part of the treatment, but said that she can't come soon due to livelihood concerns. Her daughter-in-law suffers from rheumatic heart disease and one of her grandsons from single sickle diseases.

Then came a father who had travelled over 70 kms in a crowded bus for treatment of his child suffering from sickle disease. Next came another father with a four-year-old child who had suddenly stopped walking. A suspected case of spine TB. This child had apparently earlier received very careless treatment from quacks. The father said the child had been given about a dozen injections recently. Another TB patient came in, an adult who was so weak and wasted that he had the weight of a child. A worried health worker coming from a village reported an outbreak of scabies in four households. Another health worker came to report a case of acute psychosis - a man who laughed all the time yet had violent tendencies towards close family members. In both these cases health workers returned with medicines.

The JSS has already made an important contribution in emphasising the enormity and seriousness of rural health problems, effectively challenging and breaking the myth of 'small problems of small areas'. This view has been articulated

very effectively in the recent (2012) Charuter Arogya Mandal (CAM) lecture by Dr. Yogesh Jain, Secretary of JSS. Speaking from close personal experiences of what he has seen day after day at Ganiyari hospital, Dr. Jain said, "Approximately 270 to 300 people attend each OPD after waiting for an average of four days to get into the queue, another 25 emergencies are also seen every day. Under-nutrition underpins all these conditions making us question several myths that abound about health status and burden of problems of rural poor. The astonishing numbers and complexity of these illnesses helped us explode this huge myth that people in small places have small problems."

One of the most basic precepts for the JSS has been to question and challenge inequalities at all levels, whether at the level of access to nutrition or health or in other contexts. JSS has taken special care to create a pharmacy which is a model for providing low-cost, essential and generic drugs. The entire experience shows how rational pharmacy can reduce costs of therapy in a big way.

This practical experience has provided a strong base for the wider advocacy campaign and public interest litigation of the JSS for low-cost, rational medicines. Planning Commission member Syeda Hameed on her visit to JSS said that such initiatives should be used to initiate wider national level changes. She says, "I learned about a set of dedicated professionals who work directly with people. They see patients as partners, not as 'beneficiaries' who are a burden. They develop low-cost technologies, use school going children as couriers to drop and pick up malaria slides to expedite treatment. The result: for the first time, the tribals here have access to a decent healthcare system. As planners, we must ask ourselves whether we have the courage to replicate good practices like Ganiyari all over rural India. If it is possible in a difficult terrain and hostile environment like Ganiyari, why can't it be scaled up to be a part of the National Rural Health Mission?" ■

# COOL CHAMP



Try to answer the questions below and send your answers along with your name, address, date of birth, school and photograph to: **"YOUNG INDIA QUIZ"** One India One People Foundation, Mahalaxmi Chambers, 4<sup>th</sup> floor, 22, Bhulabhai Desai Road, Mumbai - 26. You can also log on to our website and answer our quiz online at [www.oneindiaonepeople.com](http://www.oneindiaonepeople.com). We will choose two winners (the Cool Champs) from all the correct entries and publish his/her photograph and name along with the answers in our next issue. **(Last date for entries: July 20, 2013)**

## Quiz No: 114

### 1. Where is 'Jallikattu' held?

- a. Andhra Pradesh ☐
- b. Sikkim ☐
- c. Tamil Nadu ☐
- d. Nagaland ☐

### 2. Which national park is known to house the largest number of one horned rhinoceros?

- a. Jim Corbett National Park ☐
- b. Kaziranga National Park ☐
- c. Bandhavgarh National Park ☐
- d. Hemis National Park ☐

### 3. Where is India's first marine national park situated?

- a. Kerala ☐
- b. Maharashtra ☐
- c. Gujarat ☐
- d. Andaman and Nicobar Islands ☐

### 4. In which state is Joshimath located?

- a. Uttar Pradesh ☐
- b. Uttarakhand ☐
- c. Madhya Pradesh ☐
- d. Maharashtra ☐

### 5. What is Bishnupur in West Bengal famous for? (Clue: OIOP, June 2013 issue)

- a. Terracotta temples ☐
- b. Hill stations ☐
- c. National parks ☐
- d. Monasteries ☐

## Answers to Quiz # 113

### QUESTION 1

**Answer: (c) Acharya Charak**

Acharya Charak, a sage believed to be born in 300 BC, is known as the 'Father of Indian medicine' for his contribution to the field of Ayurveda. His classic work *Charak Samhita* written thousands of years ago, is still as relevant as ever.

### QUESTION 2

**Answer: (d) Bihar**

Mahatma Gandhi Setu is a bridge built over river Ganga connecting Patna to Hajipur in Bihar. With a length of 5,575 metres, it is one of the longest bridges in the world and the longest river bridge in India.

### QUESTION 3

**Answer: (b) Painting**

Raja Ravi Varma, regarded as one of the greatest painters of all time, was famous for his paintings based on Ramayana and Mahabharata. His paintings, available today as oleographs, are even today as popular and sought after as it was then.

### QUESTION 4

**Answer: (d) Ghatam**


An ancient percussion instrument from the South of India, *Ghatam* is a clay pot with narrow mouth. The performer

plays different sounds on it by striking its outer surface using his fingers, thumbs, palms and heels of hands.

### QUESTION 5

**Answer: (d) Hyderabad**

Sudha Car Museum in Hyderabad is an innovative and creative museum housing whacky, funny and some bizarre shaped car collection. (For more information, please read OIOP, May 2013 issue.)



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## Quiz No. 113

**No winner**



## The Umbrella: Reinvented

**C**OME rainy season and everyone takes out their umbrellas. Single, double, or triple fold, you get them in various styles and colours. Did you know that the humble looking contraption has been in existence for over a thousand years?

Evidence of the use of an umbrella has been found in ancient artifacts, paintings and sculptures all over the world. The most ancient umbrellas were built by tying huge leaves to a stick. Over the years, people began to replace the leaves with paper, wood and cloth. The Chinese were the first to wax or lacquer their umbrellas and make them

waterproof. People came up with different versions of the umbrella, eventually using steel to make its ribs. The history of the umbrella was revolutionised in 1852 when Samuel Fox introduced the U-

shaped steel-framed umbrella that's still in use today.

### Not Just For Rains!

Umbrellas are used not only for protection from the rains, but also for various other purposes.

As a status symbol in the olden days, the umbrella was associated with rank. Multi-tiered umbrellas symbolised wealth and power. Amongst Assyrians, only the king was allowed to use an umbrella. The umbrella is still used as a symbol of royalty in many African countries. Special umbrellas with reflectors inside are used by photographers to get the desired light effect.



### Did You Know?

- The study of umbrellas is called brolliology.
- The word 'parasol' comes from the Latin words 'parare' meaning 'to guard or to protect' and 'sol' meaning 'sun'. So a parasol is a light umbrella that protects the user from the sun.
- When umbrellas first arrived in England, they were regarded as a feminine accessory. It was writer-cum-traveller Jonas Hanway who popularised umbrellas among men.

#### Funky Umbrellas Lightdrops Umbrella

This amazing umbrella lights up in the rain! Its PDVF (Polyvinylidene fluoride) surface uses the energy of the falling raindrops to charge the lights fitted into it.

#### Hydrochromatic Umbrella

It is a black umbrella with white designs made with hydrochromatic ink. The designs become colourful when the umbrella gets wet!

## Wear your Thinking Cap

Five children, Sheila, Tony, Taruna, Mary and Lata all forgot their rainwear in school. Mrs. Husein, their classteacher found 2 umbrellas and 3 raincoats in the classroom the next morning. However none of the belongings were labeled. Can you help her return the things to their correct owners?

- One of the girls has a pink raincoat.
- One boy and one girl have an umbrella each.



- Lata's rainwear is neither orange nor black.
- Tony, Taruna and Lata all have rainwear that is a colour of the rainbow.
- Sheila's favourite colour is pink.
- Lata's raincoat is not her favourite colour, which is green.

Answer: \_\_\_\_\_

Sheila - Pink raincoat, Tony - Orange umbrella, Lata - Blue raincoat, Taruna - Green raincoat, Mary - Black umbrella



## Art Beat

**V**EGETABLE dyes, cotton or silk cloth, wooden design blocks, a bamboo pen and loads of patience and skill - these are the key ingredients of Kalamkari, a traditional art form of Andhra Pradesh.

Kalamkari literally means 'pen work'. There are two distinct styles - Masulipatnam style in which wooden blocks with Persian motifs like trees, flowers and creepers are used and the Srikalahasti style, which is inspired by temples and Hindu epics and uses a special bamboo pen, *kalam*, to depict characters from Hindu mythology. Colours have a symbolic importance in Kalamkari - red is used for demons, blue for gods, yellow for females and green for Hanuman. The colours are obtained from natural sources like pomegranate fruit and mango bark.

## Kalamkari

The design is traced with a charcoal stick onto a cloth that has been soaked in a solution of cowdung and water and dried. Next, the colours are applied. Once it has been dyed, the cloth is washed and dried. The result is a riot of bright hues.



## Sparkler

## Light Thrust



Subhas Chandra Bose was touring England, trying to muster support for the cause of Indian freedom. After a speech in which Bose angrily denounced the British policy of suppressing the voice of the Indians, a man from the audience got up and remarked, "Haven't you heard, Mr. Bose that the sun never sets on the British Empire?"

"I have, Sir," Bose shot back. "Even God does not trust the British in the dark."

## Simple Science

## Why do clouds become dark before it rains?

**N**ORMALLY, the small water or ice particles that make up the cloud scatter the light that falls on them. As a result the cloud appears white. However, when the size of these particles increases, as it does just before the cloud begins to deposit rain, the light instead of being scattered is absorbed. Consequently, much less light reaches the observer on the ground, and the cloud appears dark.



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# USTAD ZIA FARIDUDDIN DAGAR

## The Dhrupad maestro (1932-2013)

*"My music is older than my religion. For me swar is God and God swar. Where is the conflict then?"*— Ustad Zia Fariduddin Dagar in *Outlook*, June 3, 2002

**D**HRUPAD is full of dignity and majesty of emotion. Its verbal and emotional dignity is conveyed by slow, elephantine movements and with utmost economy of flourishes and decorations. It represents the most noble style in Indian vocal art," writes musicologist Alain Danielou. Many Westerners as well as Indians would endorse his statement. Exponents of the Dhrupad form enjoy great respect as well as fan following, particularly in the West. Musician and author Deepak Raja, in his book *Hindustani Music Today* makes a bold statement that Dhrupad is fast becoming a Western genre of Indian origin, performed predominantly for Western audiences by Indians and, increasingly, also by Western musicians. This may sound a bit far-fetched or exaggerated. Yet there is little doubt that the Dhrupad form of music is avidly followed by people in the West. Ustad Fariduddin Dagar, veteran exponent of the Dhrupad form, who was one of the people who could be credited with the revival of the Dhrupad tradition, passed away last month in Mumbai.

Well-known musicologist Peter Pannke from the Netherlands was attracted to Indian music because of the compelling Dhrupad performance by the elder Dagar brothers from Delhi. The brothers, Mohiuddin and Aminuddin always performed in duet. In Mani Kaul's memorable film *Dhrupad* there is a beautiful sequence of rudra veena maestro Zia Mohiuddin Dagar and his vocalist brother Zia Fariduddin doing a *jugalbandi* in the raga 'Malkauns'. These are some specimens of superb rendering of the Dhrupad form of music. After Zia Mohiuddin's early demise in the 1990s, it was Fariduddin who carried forward the great tradition on his shoulders for over two decades with distinction. The process of the revival of the Dhrupad form began in the post Independence period. Thanks to the efforts of the Dagar clan as well as other Dhrupad singers like Siyaram Tiwari and Ramchatur Malik, the Dhrupad form has survived. The Dagar brothers had taken a vow, way

back in 1940, to "reinstate Dhrupad to its old glory". They trained many students, performed in many concerts and helped to activate the interest of the connoisseurs in what was earlier seen as a 'dying form' of music.

The Dhrupad form of music ruled the roost for over five centuries. From the 11<sup>th</sup> century to the 17<sup>th</sup> century, Dhrupad was the principal form of Hindustani music. It reached its

apogee during the times of the Mughal Emperor Akbar who had singers like the legendary Tansen in his court. Tansen was a Dhrupad singer. The most

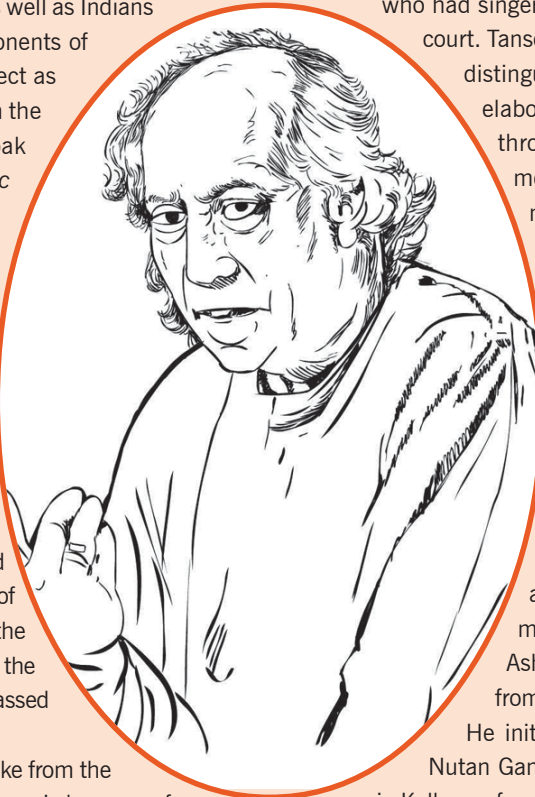
distinguishing feature of 'Dhrupad' is the elaboration and exploration of the raga through 'nomtom alaps' (apparently meaningless syllables such as 'ri, ta, na, naa, nom'; in fact it is a musical transliteration of the 'mantra'- 'Om Anant Hari Narayan'). The process of exploration seems unlimited and it gives the impression of endless possibilities of note and pattern combinations in raga music. This lends a spiritual dimension to Hindustani music and appeals the most to those Westerners who are looking for a serious content in musical presentations.

Ashish Lalit is a young Dhrupad singer from Devgad in the Ratnagiri district.

He initially learned the khyal form from Nutan Gandharv aka Appasaheb Deshpande in Kolhapur for about five years. Now 30, he shifted

from the khyal form to the Dhrupad form after having read Fariduddin Dagar's interview in 'Gentleman' magazine. Fariduddin Dagar was appointed a resident guru at the Dhrupad Kendra funded and started by the Government of Madhya Pradesh. It began in 1980s and produced very able and competent Dhrupad singers like Uday Bhawalkar and the Gundecha brothers. Fariduddin Dagar spent over 20 years in Bhopal and ran the Kendra with dedication. Many awards and honours came his way, from Sangeet Natak Academy to the SRA/Music Forum award for contribution to Hindustani music and many more. With his passing away, a committed exponent of the Dhrupad form has passed into history. ■

— Amarendra Dhaneshwar is a classical singer, and also a freelance journalist and cultural activist.



# RITUPARNO GHOSH

## The legendary film-maker (1963-2013)

**R**ITUPARNO Ghosh, 49, passed away in his sleep on May 30 at his Kolkata residence from cardiac arrest. His passing takes away from Indian cinema, one of its brightest and most talented stars. He had much left in him in terms of ideas, concepts, perceptions, ideologies and their execution through the language he had excellence in – cinema.

Few outside Bengal know that he was a brilliant journalist and edited the Sunday supplement of a Bengali daily.

He had served as editor of a noted Bengali film

fortnightly for many years before that. He anchored television talk shows featuring celebrities from the cultural field and did fashion designing. His sartorial statements became his brand identity. He said that it was cinema that was the closest to his heart. He handled several departments such as screenplay and dialogue. In *Khela*, he wrote outstanding lyrics. Slowly, he began to extricate himself from multi-tasking to concentrate on cinema. A few days before he passed away, he finished the shooting of his last film, a detective thriller based on the exploits of Byomkesh Bakshi, a famous detective. His documentary on Rabindranath Tagore entitled *Ghare Bairey*, is yet to be premiered.

After graduating in Economics from the Jadavpur University, Rituparno joined an ad agency and honed his skills with 400 ad films many of which won awards everywhere. His first feature film *Hirer Angti* (1992) produced by the Children's Film Society, did not carry the stamp of his brilliance. He surprised everyone when his second film *Unishe April* bagged the top award at the National Film Awards. For Ghosh, there was no looking back. *Dahan*, based on a novel by Shirshendu Mukhopadhyay, is actually a cinematic interpretation of a true incident of a woman getting molested on a street of Kolkata that took place in June 1992. Ghosh made a strong statement, not only on the position of woman-as-victim in Indian society, but also on audience expectations of female representation conditioned by popular cinema.

His career is coloured with rainbow hues beginning with women-centric films touched with his feather-light, subtle

strokes like a landscape painting - *Unishe April*, *Dahan*, *Asookh*, *Titli* and *Bariwalli*. Man-woman relationships found prime space in *Raincoat* (Hindi), *Dosar*, *Abohomaan* and *Shob Charitra Kalponik*. He drew generously from literature for *Antarmahal*, *Chokher Bali*, *Noukadubi*, *Shuvomuhurat* and *The Last Lear* beginning with Tarasankar Bandopadhyay through Rabindranath Tagore and Agatha Christie to William Shakespeare. Insights into the character-centric extended

family came across in *Utsab*. In *Khela*, the story is about a creative filmmaker who kidnaps a boy he finds right for his film.

Through his self-reflexive statements in films where he wove in filmmaking within the main film such as *Bariwalli*, *Shuvomuhurat*, *Khela*, *Abohomaan* and *Just Another Love Story*, he did not spare himself to show how filmmakers mercilessly exploit their artists emotionally to get the best work out of them and then leave them to nurse their emotional wounds, scarred forever.

His acting debut came with Kaushik Ganguly's *Just Another Love Story* followed by *Memories in March* directed by Sanjoy Nag and in his last directorial released film *Chitrangada – The Crowning Wish*.

These three films are marked by Rituparno Ghosh, the person, merging with the character he played in them – that of an androgynous person constantly struggling with his sexuality and longing to belong, be accepted and recognised by the mainstream. No Indian film has dared to touch sex reassignment surgery undergone by a man to become a woman. *Chitrangada – The Crowning Wish* tackles this issue head-on through the eyes of its protagonist portrayed by Ghosh. He was so confident about his command over his cast and crew that many of his actors and technicians went on to win National Awards for their work in his films. He bagged more than a dozen National Awards for his films. *Chitrangada* bagged for him the Special Jury Award at the KASHISH Queer Film Festival in Mumbai recently. The West Bengal government recently honoured him with the title of *Banga Vibhushan*. ■

– Shoma A. Chatterjee is a freelance journalist, film scholar and author.



# CAPTAIN RADHAKRISHNAN HARSHAN AC

## A source of inspiration (1980-2007)

*His toughness and tenacity was evident in the operations conducted by him. He eliminated two terrorists single-handedly.*

**H**ARSHAN was born on 15 April 1980 at Manacaud, Thiruvananthapuram in Kerala. He persuaded his father to admit him to Sainik School, Kazhakootam. He joined the school in class VI in June 1990. He was brilliant in studies and sports and displayed high degree of courage and extraordinary leadership qualities at all occasions. He was appointed school cadet captain in the final year in 1997 and was awarded the all round cadet trophy. He left his engineering course midway to join the National Defence Academy which was his dream from childhood. His friend, Manu, a software engineer at Infosys, commented, "You could not imagine Harshan as an engineer, sitting at a desk in a corporate job. He was cut out to be a soldier." He proved himself to be one of the best cadets and was commissioned into 2 Para (Special Forces). The elite unit was called the Red Devil and had carried out a daring airborne operation at Tangail in Bangladesh in the 1971 War. An officer of the elite unit had explained that in Special Forces, one has to be 100% all the time. One cannot slip to 99%.

An outstanding officer, Harshan was an under-water diver and an excellent cross-country runner. He excelled in the mountaineering and High Altitude Warfare courses. His toughness and tenacity was evident in the operations conducted by him. In 2007, the unit was located in Lolab Valley in the border district of Kupwara in J & K. He had relentlessly tracked down terrorists during his tour of duty in J & K. On 7 March 2007, while leading a team, he observed a suspicious movement in area Kaingurnar. He crawled into the bush and shot a terrorist at close range. The second terrorist opened fire on him. He charged and shot the second terrorist as well, thus eliminating two terrorists single handedly.

On 20 March 2007, reliable information was received of the presence of terrorists in area Chotimargi in Lolab Valley. Not daunted by heavy snowfall, Harshan set out with a

party and surrounded the suspect house. A little before 4 am, four terrorists rushed out firing indiscriminately to break the cordon and came face to face with Harshan. Harshan shot down the leader of the group but received a bullet injury in his thigh. Unmindful of his injury, he shot down another militant charging at him. He received another injury on his neck. He lobbed a grenade injuring one more terrorist before succumbing to his injuries. His valour inspired his men to pursue and eliminate the remaining militants.

Amongst those killed were two top leaders of the Harkat-ul-Mujahideen. He was awarded the highest peace time gallantry award of Ashok Chakra for displaying rarest of the rare courage.

He was the youngest recipient of this gallantry award and died just two days before he was to proceed to his home on leave. The award for Harshan was received by his father K Radhakrishnan Nair on the Republic Day Parade on 26 January 2008 from the then President Pratibha Patil.

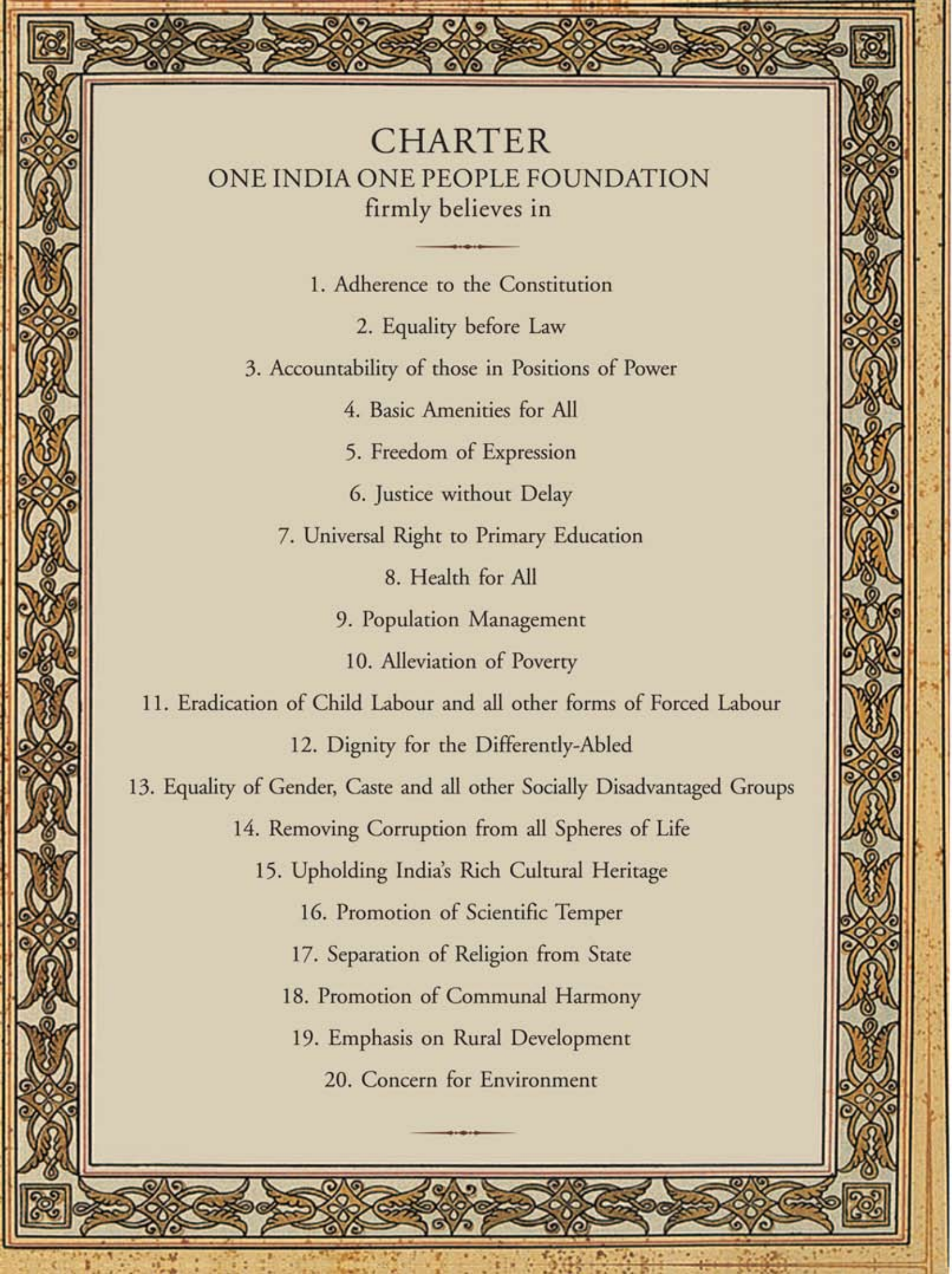
His body was flown to Thiruvananthapuram, enroute to his home town Manacaud. A flame of remembrance was lit at the Parachute Regiment Centre for Captain Harshan. The funeral was attended by a large gathering of people.

The whole town was awash with Harshan's garlanded portraits and tricolour buntings. Kerala has a large contingent of defence veterans but since the state has never borne the ravages of war, there was little appreciation of men at war. Kargil war of 1999 changed that since the satellite TV brought the battle into the drawing rooms. The surge of emotional support waned over time. The saga of the martyrdom of Harshan rekindled the sense of goodwill for the defence personnel.

The Old Boys Association of his alma mater, the Sainik School Kazhakootam sponsored a stadium in his honour and his bust has been constructed at the central garden of the academic block. Captain Harshan will continue to be a source of inspiration and motivation for the young cadets and his memory will continue to be fresh in their minds. We need more heroes like him. ■

— Brigadier Suresh Chandra Sharma (retd)





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*Am I a Muslim first or an Indian first?*

*Am I a Christian first or an Indian first?*

*Am I a Buddhist first or an Indian first?*

*Am I a Brahmin first or an Indian first?*

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*Am I a South Indian first or an Indian first?*

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Sadanand A. Shetty, Founder Editor

(October 9<sup>th</sup>, 1930 – February 23<sup>rd</sup>, 2007)

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