## **CYCLE OF SEASONS**

By Dr. M.N. Buch

In the late sixties and early seventies of the last century my favourite mode of travel between Bhopal and Delhi and vice versa was the Punjab Mail. In those days it had only one air-conditioned first class coach and till about 1972 I was not entitled to travel in that class. Therefore, I travelled by first class and generally got a coupe to myself because that was my entitlement. In the summer the homebound journey from Delhi, by the time one reached Mathura it was so hot that I used to soak a bed sheet in water and wrap it around myself. Every quarter of an hour or so I would again go and soak the bed sheet. It is only this which prevented a hot stroke. Jhansi came at about lunch time and thereafter in the early afternoon the train began to climb the ghat towards Bina, a station one reached between 3.30 and 4 o' clock in the afternoon. It is difficult to describe the relief one felt as one climbed the ghat because there was a perceptible drop in temperature. By the time one reached Bhopal it was like coming into paradise because the difference between the temperature at Delhi and at Bhopal was anything between 8 degree to 10 degree Celsius. The evenings at Bhopal, of course, were always a delight and if one slept in the open at night one needed a light covering. We Bhopalis took great pride in living in such a pleasant city and looked down our noses at the unfortunate citizens of Delhi, baking in the summer.

Bhopal had distinct seasons. The summer daytime temperatures were warm but kept short of 40 degree Celsius. The minute the sun started its evening journey the temperature fell sharply so that by about seven in the evening one could sense a distinct cooling of the atmosphere. The summer was relatively short from about the third week of April to about the  $10^{th}$  of June. Early June brought its first showers and unlike the north where the monsoon is sticky, hot and uncomfortable, in Bhopal the entire monsoon is cool and brings us as near as paradise as is possible, or at least it was so in the era of which I am talking. The end of the monsoon brought us to autumn, when the air was cool, monsoon humidity had declined, the kharif crop was ready for harvesting and the festive season of Dusserah and Diwali had begun. This was the time to rejoice because round the corner was the winter, cool, even sharp and cold, with its lovely winter vegetables and fruits, cold evenings, hot drinks and nuts. This was party time and picnic time. As winter began to fade Bhopal had a distinct spring, or Basant, when the sharpness went out of the air, but it was still very pleasant and sky was full of kites. Climatically Bhopal was one of the loveliest places in India. This was also the time of the rabi harvest, which brought prosperity to farmers and gur, sugar cane and roasted bhutta to us.

Let us come to May 2010. Bhopal has experienced the warmest summer in more than sixty years and on 24<sup>th</sup> May, 2010 the city of Bhopal registered a maximum temperature of 46 degree Celsius in the shade, a good 9 degree Celsius above normal. Night brings no relief and it is only in the early hours of morning that one is reminded that one lives in Bhopal and not in Delhi. It is unbelievable that in just thirty years Bhopal has become what it is, that is, one of the warmest cities in India. How has this happened and can we reverse the trend? One explanation is global warming and perhaps that is a major contributing factor. However, there are local factors also involved. For example, the temperature at Chetak Bridge was recorded at 47 degree Celsius, at Arera Colony where I live it was about 42 degree Celsius and at Rishab Dev Park along the Shahpura Lake it was 35 degree Celsius. Westerly winds blow over the lake, cool down in the process and keep the road between Campion School and the Academy of Administration relatively pleasant. In other words, within the same city in a heavily built up area, with heavy traffic and air-conditioners throwing out waves of heat the local temperature rises. In a less densely populated area with gardens and trees the temperature is substantially lower and in a

park along the lake the temperature falls within the zone of being hot but not unbearably so. There could be no better demonstration of the link between a heavily built up area and local weather, a less densely built up area with gardens and trees and a park with a water body as a moderator of temperature. The lesson is before us. If one wants to moderate the climate locally we have to build within environment constraints, plant innumerable trees, create parks and build water bodies. Global warming notwithstanding, the local environment will benefit by these measures and the city will be easier to live in. Today the only different between Bhopal and a blast furnace is of a few degrees – a Bhopali with memories of old Bhopal will find it difficult to distinguish between the two.

We cannot ourselves reverse global warming, but we can create an environment locally which neutralises the effect of such warming. Instead we are doing the exact reverse. Hundreds of trees have been cut down in New Market in order to accommodate a huge commercial precinct. The lovely old Minto Hall, Gandhi Park and the aquarium are to be sacrificed on the altar of commercial greed. The four lakes which form the core of old Bhopal have already been filled, except for one and this has changed the micro climate in Shajahanabad and on Hamidia Road. Everywhere there is massive deforestation. If we want to survive we have to reinvent the forests right from Bina onwards, we have to lower the densities in our cities and we have to construct sensibly, retaining the equilibrium between built space, parks and gardens, city forests and local water bodies. If we do that we can restore the climate which Bhopal once enjoyed. Today the position is that if Kalidas were to rewrite his epic, "Ritu Samhara" he would be able to list only one season, summer, more summer and yet more summer!!

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