

## **Sikka Saheb: An Inspiring Meteorologist**

When I think of Shri D. R. Sikka, I find a down-to-earth human being and simultaneously a scientist and intellectual of the tallest order. He was following the principles of simple living and high thinking. He was a keen observer of the nature. As a scientist he not only had information on each and every dot in meteorology but also had the knowledge on how to connect those. Since Sikka Saheb left for his heavenly abode, the depth of his scientific analysis and command on the subject have been missing in every meteorological gatherings. Knowingly or unknowingly, he had inspired and modulated the lives of several meteorologists in India and abroad. I am sure, almost all those who have come in contact with Sikka Saheb has some interesting experience to share. I too have the following to express.

As far as my memory goes, I first met Mr.D.R.Sikka in the year 1977 while I was pursuing my PhD in the Physical Research Laboratory (PRL), Ahmedabad under the supervision of Prof. R.N.Keshavamurty. Sikka Saheb used to visit PRL on various occasions and I had the opportunity to interact with him. With my background in Physics, I was just learning Atmospheric Sciences by going through some books meant for the beginners and also availing opportunity to enhance knowledge through discussions with experts in the field. I was trying to understand the growth of cyclonic circulations during the Indian summer monsoon. We all know that Sikka Saheb had some very good papers on monsoon disturbances.

There was a need for analysing the rocket data collected under an ISRO programme and Prof.P.R.Pisharoty had asked me to look into these data. The results coming out of that analysis were reported in my first paper in the form of a short contribution and was submitted to Mausam. It so happened that it went to Sikka Saheb for review. He recommended it for publication with some minor changes. He also personally discussed with me when he visited PRL. I was highly encouraged to get appreciation from a scientist of eminence like Sikka Saheb on my first ever research work. After that incident, I used to meet him in several other workshops and conferences while being a student in PRL. He had such a towering personality that it was difficult to miss his presence in any meeting. In him I found a person who not only spoke his mind out, but also was open to others views. He had the true quality of a scientist. For an early career scientist like me it was quite a learning process to listen to him and respond.

While pursuing my PhD in PRL, I was on study leave from the Stewart Science College, Cuttack, Odisha where I was a Lecturer in Physics. My leave was under UGC Teachers Fellow Programme. After the completion of PhD in 1982, I rejoined the Stewart Science College and was disappointed for not being able to pursue some research in Weather and Climate Science. I was planning to move out to a research organisation. I was exploring the possibility of a suitable position in IITM, Pune and hence discussed the matter with Sikka Saheb. With the back ground of the then scientific structure in IITM and my permanent position as Lecture, he suggested me not to plan for joining IITM since it would not be a good career option for me. I must admit that as a well wisher, he was absolutely right in my case.

After I joined CAS, IIT Delhi Shri Sikka used to visit our Centre on several occasions either to attend some meeting or to discuss with us on some important projects of national interest. Such meetings with him were part of the overall learning process. My professional interaction with Sikka Saheb grew when he

was the Chairman of PAMCs in MONTBLEX and Indian Climate Research Programme of DST. From the early days of my entry into Atmospheric Sciences, I have been interested in research related to numerical modelling in the atmospheric processes. In late 80s and early 90s, not much modelling work was being done in India. Because of my visits to the University of Reading and ECMWF under British Council Colombo Plan, I had the mandate to convert the Cray version of the dynamical code of the coarse (T21) resolution ECMWF spectral GCM and the GFDL Physics as per the Cyber attributes available in NIC, GoI, New Delhi. In addition, on return to India I had to install and run the modified model in that Cyber system. It was really a challenging job at that stage of NWP in India. Subsequently, there was a national need to parallelise the model code for installing on indigenously built low cost parallel computers. This gave me substantial opportunity to be trained in NWP and be indulged in model sensitivity experiments for simulating Indian circulation patterns and especially Indian summer monsoon features under different surface boundary conditions. Considering the then limited infrastructure available in the country, NWP was a challenging job. Sikka Saheb was always concerned about the value to be obtained for the money spent in any sponsored project. He was a strong believer in observations in weather and climate systems and their intelligent scientific analysis to obtain logical conclusions. During our interactions, he had tried to convince me that logical scientific analysis of observed facts can lead to fantastic results as against the enormous efforts put in modelling, primarily due to resources crunch in our country. Personally, he had suggested me to devote more time on observed facts rather than modelling per se. He was very correct in his thinking. All his seminal work show his level of scientific analysis and grasp of meteorology. In the first project proposal of mine where I had requested for a reasonably powerful (then) computer for conducting sensitivity experiments, it was hard on my part to convince him the requirement of a workstation in the project. I had to be satisfied with a desk top with some additional data storage facility. The interesting quality of Sikka Saheb was that, he used to argue and discuss with you very passionately about the project requirements, and observe the project progress keenly. My research in use of parallel processors in meteorological modelling helped me a lot in conducting sensitivity experiments. He also appreciated that. On my personal request, he was devoting adequate time to discuss with me the details of the proposal and reshape experimental designs where required. In one of my project proposals, he played a very important role in suggesting the experimental design for examining the relative roles of SST and Eurasian Snow in a GCM for simulating Indian summer monsoon rainfall.

Sikka Saheb was a great mentor. I had enjoyed my discussions with him on several occasions and cannot forget his valuable input. I had opportunity to organise a couple of brain storming workshops in India and also in NCAR, USA on the topic of HPC in Weather and Climate Modelling. Sikka Saheb had always taken very active role in HPC related work and had encouraged me to continue those activities. I cannot forget his valuable suggestions in the final report submitted to DST concerning use of HPC. He practically sat with me for a couple of days to complete the report. His greatness lies in his readiness to interact with the youngsters and to make himself available for discussion on any type of new idea. I was happy to invite him to all the meetings, workshops and conferences organised by me in IIT Delhi. It was an honor that he accepted my invitations and participated in those events. Even when he started using support for his normal walk, he never hesitated to climb up to our rooms situated on the second floor. What he expected was the sincerity of purpose and hard work. He was known for his keen observations and

honest comments, but always with eagerness to help with valuable suggestions. On several occasions, he used to look for specific goals of any scientific endeavor and the sound approach to achieve meaningful results.

In due course of time, I got interested in the study of Climate Change and its impact of Human Health. Shri D.R.Sikka and Dr.S.M.Kulshrestha, for the first time in India studied this important aspect and prepared a report for COLA and CARE in USA. When I started getting involved with the network programme of DST on this specific topic, I got opportunity to interact with both Sikka Saheb and Kulshrestha Saheb and used to take their valuable comments on several scientific projects. It was a very interesting experience to learn from the knowledge and wisdom of experts in the field.

Today, whether I formulate a scientific project, undertake a specific research work, write or review a paper, and review a project, I make use of and where necessary modify the learning curve which has taken shape in my mind through my enormous interactions with Sikka Saheb. I can definitely say that nothing can substitute the personal experience one gathers by coming in contact with a great person. Even now I see Sikka Saheb while we indulge in debates in scientific meetings.