



Government of India
National Centre for Disease Control

(Formerly: National Institute of Communicable Diseases)
(Directorate General of Health Services)
22-SHAM NATH MARG, DELHI - 110 054



A brief note on the NICD Cooler

- Dengue and chikungunya have become important outbreak prone vector borne diseases in the country. Outbreaks results in loss of working man-hours, long period disability in patients after initial recovery from diseases like chikunguny, mortality in patients suffering from dengue hemorrhagic fever, which directly affect the economy of the society.
- The mosquitoes transmitting these viral diseases are found breeding in domestic/peri-domestic containers including desert coolers.
- The conventional desert coolers are being used in many parts of the country as a cooling device in houses, offices and industrial establishments during the summer months.
- The conventional desert coolers hold water for long period and they have become the potential breeding grounds for dangerous mosquitoes in absence of adequate control efforts.
- The study carried out in Delhi area revealed that more than 50% of the breeding places of dengue vectors are contributed by these conventional coolers because of the following reasons:
 1. The water tank of the conventional coolers is open type, which attracts mosquitoes for egg laying which results in prolific breeding of *Aedes aegypti* mosquitoes and transmit dengue/chikungunya viruses.
 2. Weekly larviciding or cleaning is required to prevent breeding of mosquitoes inside the cooler, which is often not practiced.
 3. Standing water in the cooler, when not in use, particularly during monsoon season, has high potential for the breeding of dengue vector mosquito and thus increases the risk of disease transmission.

In order to overcome the above problems, a mosquito proof desert cooler (NICD Cooler) has been designed in 2009 (The photograph of the same is at Fig. 1). The NICD cooler has the following advantages over the conventional desert coolers:

1. Water tank of the NICD cooler is completely covered to prevent the entry of mosquitoes in to the water tank for egg laying. There is thus no risk of disease transmission due to coolers.
2. No weekly cleaning of the water tank is required.
3. No chemical larvicide is required to kill mosquito larvae.
4. It can be conveniently installed in high rise buildings.
5. Even standing water in the cooler, when not in use, has no risk of mosquito breeding.

The NICD cooler is a patented item and registered with National Research Development Corporation (A DSIR enterprise, Ministry of Science and Technology) and is being manufactured and marketed by the following agencies:

**Agencies registered with NRDC for the manufacturing and marketing of
NICD cooler**

1. Sh Jaiparkash,
M/s Shriram Electrical
Engineering,
K-187, Sector-3, DSIDC,
Bawana Ind. Area,
Delhi-110039
Tel. 09212036063
09811287590
2. Mrs. Unnathi,
M/s Unnathi Electrical,
H-23/665, Jaiparakash Nagar,
Ghonda, Delhi-110053
Tel. 09250512933
3. Sh. K.V. Tyagi
M/s Mamatha Products,.
D-26, DSIDC Shade,
Jhilmil Colony, Shahdara,
Delhi-110095
4. Mrs. Suman Mahajan,
1376-A, Majitha Road,
Near Bhandari Hospital,
Amritsar, Punjab.
Tel. 09356005909
09217571066
5. Mr. Alok Jain,
M/s Techno Park,
36-Industrial area, Ricchai,
Jabalpur-482002.
6. Sh. Prem Arora,
M/s Amba Engineering
Industrial,
60 F, Jhotuara Industrial Area,
Jaipur, Rajasthan
Tel. 09829057474
7. M/s Rajasthree India Limited,
B-12-13, Vinayak complex,
Near Polo Victory Station Road,
Jaipur-3026006. Rajasthan
Tel. 09829060490

