



सत्यमेव जयते

शान्तनु कंसल

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Preparedness for ensuring safe and clean drinking water and sanitation facilities during the ensuing rainy season and possible floods

Dear

In view of the coming monsoon, I take this opportunity to draw your attention to the need to plan and take necessary action to ensure that people living in the rural areas continue to get safe and clean drinking water and proper sanitation facilities, and are able to avoid any waterborne diseases during the rainy season, and floods, if they occur. Perhaps you might have already taken all necessary precautions, sensitized your team about making arrangement for stocking of materials, equipments, chemicals, repair and maintenance of water supply systems and would have also prepared a contingency plan to meet any emergency which can arise due to heavy rains/ floods.

2. In the event of flood due to heavy rains, ensuring safe drinking water and sanitation facilities to the affected population, especially in remote and inaccessible rural areas is a daunting task. Once flood water starts receding, issues about disinfection of drinking water sources, disposal of animal carcass/ dead bodies of livestock, restoration of water supply systems, treatment of water, delivery of safe water to the inhabitants in the remote areas, disposal of garbage etc. emerge as big challenges. There are instances where large-scale floods also damaged power supply, water supply pipelines, pumping machinery, etc. and therefore restoring the water supply becomes even more difficult. At times, massive efforts are required to ensure prevention of waterborne diseases and spread of any possible epidemic. It also happens that in the aftermath of bigger floods, many people become homeless and are accommodated in temporary shelters/ relief camps and it is necessary to make arrangement for providing potable drinking water and sanitation facilities in these camps also.

3. You would agree that proper planning, advance preparedness and preventive action drill to meet such eventualities go a long way in avoiding or at least minimizing many adverse impacts of such floods on human lives. Most of the times, it is the lack of anticipation, advance planning and inaction which causes difficulties. Based on the experience gained by this Department over the years, I would like to sensitize you on these aspects, some of the important points are listed in the enclosed note. If the state requires any technical assistance/ help to ensure maintenance of safe drinking water and sanitation facilities to people living in the affected areas in the wake of any flood like situation, the same may be indicated.

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4. I hope you will look into the aforementioned suggestions and take appropriate action to ensure that safe drinking water and functional sanitation facilities are available to people living in rural areas during the coming rainy season and even during possible flood.

Enclosed : As above

Yours' sincerely



[Shantanu Consul]

To All State/UT Principal Secretaries/Secretaries in charge of drinking water and sanitation

Important action points for planning and preparedness to ensure safe and clean drinking water, improved sanitation and for prevention of waterborne diseases during the rainy season and possible floods

- i.) Sensitization of people about the all aspects of safe and clean water and proper sanitation especially during rainy season and any possible floods is of paramount importance. People including officials responsible for ensuring 'safe and clean' drinking water supply and sanitation facilities should be sensitized through a well structured capacity building and training programmes before the onset of the monsoon.
- ii.) Extensive awareness campaign especially on radio and television needs to be carried out on all aspects of safe water, use of toilet facility, proper solid and liquid waste disposal and personal hygiene with major emphasis on hand washing before taking food and after defecation. People need to be educated about the kind of precaution they should take to avoid waterborne diseases, viz. need of chlorinating water or boiling it before consumption, removal of carcass/ dead bodies and animals, avoiding consuming water from open sources without treating/ boiling, stopping open defecation, keeping water sources clean, plugging holes to prevent leakages in the piped water supply systems to avoid reverse flow of unclean water, etc.
- iii.) Sanitary inspection should be carried out on drinking water sources and steps should be taken to address contamination problem, if any, to make it potable.
- iv.) Chlorination before consumption of water should be ensured and extra precaution should be taken in the anganwadis, schools, etc. Sufficient stock of chlorine tablets for distribution to individual households should be ensured. Keeping in view the extent of water logging and contamination, there may be a need to mobilize standalone water treatment plants in some areas.
- v.) After floods, once water starts receding, it is important that removal of carcass/ dead bodies of livestock and its safe disposal is accorded high priority. Effective steps should be taken to sanitize all drinking water sources especially open wells, hand pumps, etc.
- vi.) To ensure regular and proper checks of water sources, all water laboratories should be fully geared up for testing of water samples. These facilities need to remain operational on around to clock basis during critical periods. In fact, pre-monsoon checking of all drinking water sources by trained staff is mandatory. If required, mobile laboratories should be pressed into service and water should be checked for various types of bacteriological contamination before the onset of rains.
- vii.) Enough water testing kits especially to check bacteriological contamination, TDS and chlorine should be made available to the people/ persons trained in villages under National Rural Drinking Water Quality Monitoring & Surveillance Programme. During monsoon, such tests should be carried out on regular basis. This information should be disseminated to the general public through mass media e.g. Doordarshan, AIR, etc. so that people remain vigilant about such issues focusing on potability of drinking water and its sources.

- viii.) The PHED should work in close collaboration with the Health Department and surveillance/ close watch on such disease(s) should be maintained on a continuous basis.
- ix.) To tackle such emergency situations, some good manuals have been developed by UNICEF and NDMA, which are readily available. It is suggested that the prescribed procedure should be followed to avoid waterborne diseases during monsoon.
- x.) The PHE Department needs to prepare action plan for providing drinking water and sanitation facilities for tackling drinking water and sanitation problems during and after any possible flood.
- xi.) Hand pump mechanics with adequate spare parts and tools need to be kept in readiness. These trained mechanics can be subsequently engaged while restoring water supply and sanitation facilities in the affected villages. It is more likely that after heavy floods, large number of strainers of the hand pumps might have got choked with silt. To tackle such a situation, proper action plan should be in place.
- xii.) Similarly for maintaining the sanitary conditions in the camps and for regular maintenance of the toilet facilities, sanitary volunteers should be kept in readiness for speedy deployment and they should be provided with proper cleaning materials viz. phenols, detergent, soap etc.
- xiii.) Strict measures are to be taken especially in the relief camps to ensure that safe distance is maintained between the leaching pits (toilet) and the hand pumps. Proper drainage of wastewater disposal should be ensured to prevent mosquito breeding as well as contamination of ground water sources.
- xiv.) Regular testing of all drinking water sources particularly for bacteriological contamination is required. During rainy season, excess turbidity in water will be a widespread problem and it needs to be tackled along with bacteriological contamination.
- xv.) Regular disinfection of the water supply sources (hand pumps) should be the topmost priority and should continue on a regular basis. However frequency of disinfection may have to be increased and the prescribed and already developed mechanism may be put in place to monitor and rectify any reported case of contamination. In this exercise, local community leaders and NGOs/ CBOs can play a very important role and their help should be welcomed. Special requirement of small children, women and older persons should be given special focus as they are more vulnerable.
- xvi.) To ensure transparency and bring in confidence in the people, you may put details of such an action plan along with actions already taken, on the website of your department along with contact numbers of nodal officers/ control rooms, for the general public. The same may be shared with the general public through adverts in the Newspapers.
