ADVISORY: RAINWATER HARVESTING

1. Please refer to following E-in-C’s Branch letters No:-
   (a) A/37696/Arbori/Pol/E2W (PPC) dated 24 Sep 2018.
   (b) A/37696/Arbori/Pol/E2W (PPC) dated 31 Jan 2020.

2. The depleting water resource in India is likely to cause a water crisis in the fast growing cities. Over the next three decades, it is estimated that approximately 1500 number of urban centers will face water crisis. Water being essential for sustenance, undue pressure on the surface and ground water is causing its depletion across the country and we will be reaching towards ‘Day Zero’ scenario, a time when major portion of the urban population will be without water.

3. Various efforts are being made for effective utilization of rain water by the Ministry of Jal Shakti in cooperation with CGWB and State Governments under National Water Mission to ensure reduction of dependence on ground/surface water sources. Water conservation projects are being undertaken at various levels down to Panchayat level to store the rain water in different ways.

4. Since the defence forces are one of the major land holders in the country, we have a responsibility to be the major contributors towards the rain water harvesting projects. All Station HQ should be sensitized about the benefits of rain water harvesting and plans prepared to make better collection, storage and utilization of rain water.
5. Following suggestions are made for better utilization of rain water under the Station HQ in defence land:

(a) Cleaning/desilting of all lakes and water bodies in the catchment area as well as the drains and nalas leading to these water bodies prior to onset of monsoon every year.

(b) Projection of minor work/LBW for upkeep and maintenance of rain water harvesting structures which are already constructed and in use, prior to onset of monsoons.

(c) Incorporation of rain water harvesting schemes in all new projects, based on the study and instructions of Central Ground Water Board. Suitable rainwater harvesting scheme with collection/storage arrangement and networks for reuse of rain water should be designed taking into account of water percolation and retention properties, water table etc.

(d) Creation of Dug pits in the vacant areas to hold the water and reduce runoff as well as improve percolation of water into ground.

(e) The methods given in the various IS Codes such as IS 15797:2008: Roof top rain water harvesting, IS 15792: 2008: Artificial recharge to ground water and Manual of artificial recharge of ground water by CGWB be studied to adopt the most feasible method for rainwater harvesting and storage. MES establishments will provide technical assistance for assessment and construction of most economical option.

(f) Other methods for saving wastage of water like water saving plumbing fitments in bathrooms and kitchen to be incorporated in the works.

(g) Hard standings/use of cement on open spaces to be reduced to minimum to allow infiltration of rainwater into the ground. In case of inescapable requirement, water runoff should be channelized into rainwater storage tanks from the cemented areas.
(h) Efforts should be made to reduce consumption of surface/ground water by at least 20% in a year by using stored rainwater. Sufficient storage tanks either on ground or underground can be provided to achieve the goal.

6. The feasibility of storing rain water by various means suggested and reuse of the same in an efficient manner needs to be carried out in all stations. Any method other than suggested can also be implemented. Necessary technical assistance will be rendered by engineer authorities.

(K V Vinayaka)
Lt Col
SO-1 (U3)
For E-in-C

Copy to:
E-in-C’s Branch List ‘A’ and ‘B’

(i) You are requested to assist Station HQ in planning of the Rain Water Harvesting works. In this connection refer our letter No 83519/Misc-17/RWH/E4 (U3) dated 12 Feb 2007 and A/37696/Gen/12-1/Pol/E2W (PPC) dated 24 Dec 2009.

(ii) Ensure that construction of Rainwater Harvesting structure is based on CGWB report for the specific areas, IS codes and CGWB manual.

Internal
DG MAP
E2W PPC
E2W TC
E2W (Army)
E2W (Navy)
E2W (Air Force)
Automation Cell

- For info and necessary action please.

- For uploading on MES Website.