National Committee on Dam Safety

February 13, 2021

About National Committee on Dam Safety

- National Committee on Dam Safety national Level bodies
- National Committee on Dam Safety, whose functions include evolving policies and recommending regulations regarding dam safety standards.
- The National Committee on Dam Safety will be constituted and will be chaired by the Chairperson, Central Water Commission.
- All other members will be nominated by the central government, and include:
    - Up to 10 representatives of the central government,
    - up to seven representatives of the state governments (by rotation)
    - up to three dam safety experts.

Functions of the Committee include:

- formulating policies and regulations regarding dam safety standards and prevention of dam failures
- analysing causes of major dam failures and suggesting changes in dam safety practices.

DHARMA

- Dam Health And Rehabilitation Monitoring Application (DHARMA) has been designed and developed to enhance the capacity of individuals and organisations throughout India to manage their dam assets scientifically and professionally so as to sustain advantages of dams (irrigation and water supply, flood control, hydropower etc) and prevent disasters.

DHARMA will address four main challenges as described below :

1. Bring stakeholders together

There are many stakeholders involved in any dam project, including dam owners, operators, consultants, contractors and suppliers. Often, in the decades following commissioning, the details of these stakeholders can be misplaced thus denying access to valuable **information, insights and skills**.

⇒ DHARMA will ensure that details of all stakeholders are **recorded and maintained**. Such details may pertain to individuals as well as organisational entities associated with dam planning and design, construction, operation and maintenance, and rehabilitation.

2. Ensure completeness of information

Today, local and State authorities maintain limited information concerning their dam assets. This gap in information not only affects routine operation and maintenance but also decisions on **policy, budgeting and rehabilitation**.

⇒ DHARMA will enable gathering and updating of dam asset information in a **centralised and structured** manner so as to overcome limitations of multiplicity of agencies, wide geographical spread, voluminous data, varied terminologies and units, unknown and mismatched time reference and inconsistent formats.

3. Assess soundness of dam health

Well established procedures exist for periodical dam health assessment through routine inspections and detailed investigations wherever required. However, dam asset information in its current form and format often does not show the **time dependent variations** in dam health condition.

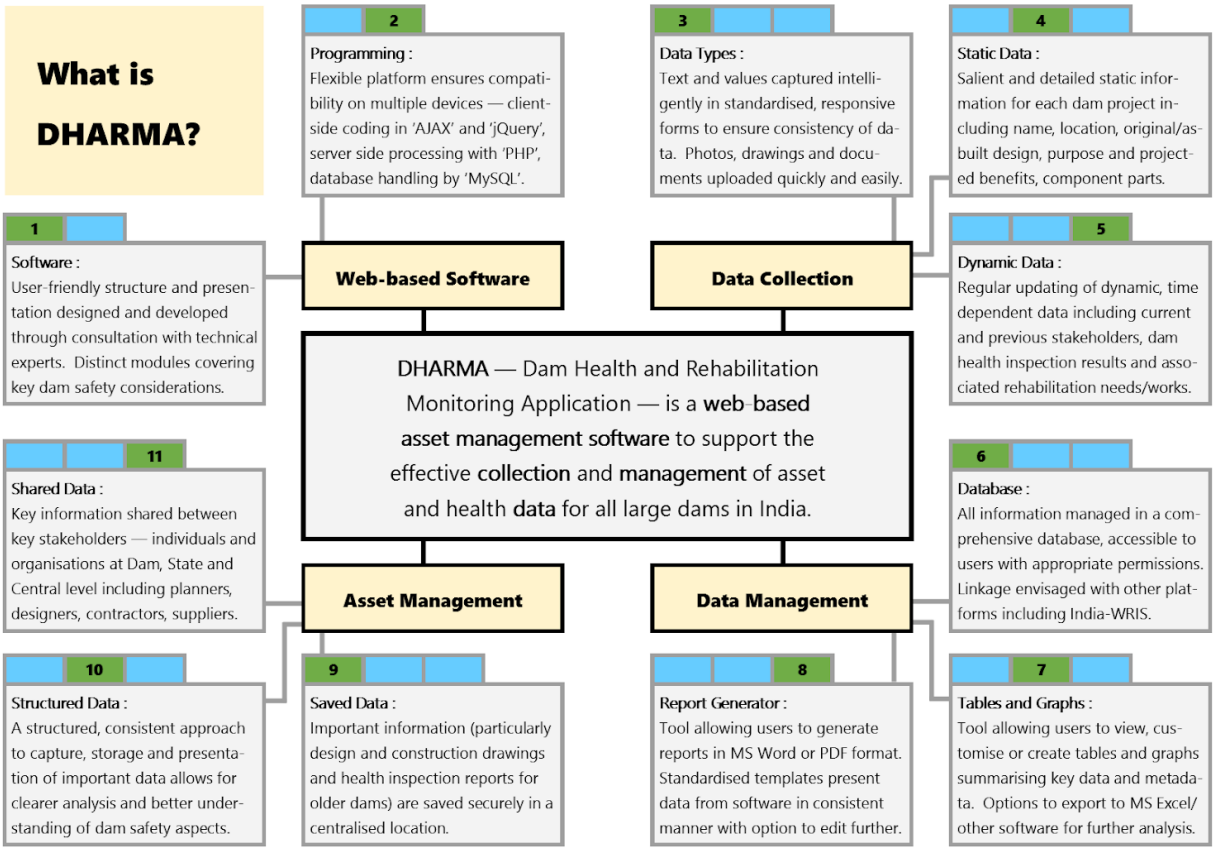
⇒ DHARMA will ensure **prompt capturing** of inspection and investigation data directly by the 'Dam Health Engineers' and provide tools for **correct analysis and interpretation** of this timeline data.

4. Effectively manage asset inventory

Effective asset management can only be achieved with engagement of key **stakeholders**, completeness of **information** and access to appropriate **tools** — a requirement which is not being met for most of dams in India.

⇒ DHARMA will provide a **complete data collection and management platform** for assimilation of varied information for every dam component across all dam projects, also thereby benefiting from the insights and learning curves of a wider stakeholder spectrum.

The main features of DHARMA are presented below :



Seismic Hazard Analysis Information System (SHAISYS)

- Is a web based interactive application tool being developed in CWC under Dam Safety Organisation (DSO) to estimate the seismic hazard at any point in Indian region.
- The SHAISYS shall be capable of estimating seismic hazard using the deterministic as well as probabilistic approach.
- This application based tool is being developed in two phases.
    - The first phase shall cover its utility for peninsular India for which the MoU has been signed with IIT, Roorkee as an initiative under Dam Rehabilitation and Improvement Project (DRIP) to further develop their capacity building under institutional strengthening. IIT Roorkee has completed the study/software and the same is under testing in CWC.
    - In the second phase, the MoU has been signed for the rest of India. This work is under initial stages of data collection, fixation of consultants and other such preliminary activities. CWPRS is under the initial stages for the study.